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Civizelotes new genus, and other new or little known *Zelotinae* (Araneae, Gnaphosidae)

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***Civizelotes* new genus, and other new or little known *Zelotinae* (Araneae, Gnaphosidae).** - *Civizelotes*, a new genus of gnaphosid spiders, is established and divided in four species groups. Notes are given on the mating mechanisms of *C. medianus* (Denis) in the *C. civicus*-group. First descriptions are given of the male of *Z. argoliensis* (C. L. Koch, 1839), of the female of *Drassyllus villicoides* (Giltay, 1932) **comb. n.**, the female of *Civizelotes dentatidens* (Simon, 1914) **comb. n.**, the female of *C. medianus* (Denis, 1935) **comb. n.** *C. medianoides* **sp. n.**, *C. ibericus* **sp. n.**, and *Heser hispanus* **sp. n.** Transferred to different genera are: *C. civicus* (Simon, 1878) **comb. n.**, *C. caucasius* (L. Koch, 1866) **comb. n.**, *C. solstitialis* (Levy, 1998) **comb. n.**, *Heser nilicola* (O. P.-Cambridge, 1874) **comb. n.**, *H. schmitzi* (Kulczynski, 1899) **comb. n.**, *H. bernardi* (Marinaro, 1967) **comb. n.**, *H. bonneti* (Marinaro, 1967) **comb. n.**, and *H. incisupalpis* (Levy, 1998) **comb. n.** *Zelotes balcanicus* Deltshev, 2006 is removed from the synonymy of *Z. argoliensis*.

Keywords: Arachnida - taxonomy - zoogeography - mating mechanism.

INTRODUCTION

A detailed study of the structure of the ♂ pedipalp in *Zelotes* requires some generic transfers. In *Zelotes* str. s. the basic structure of the palp is: Strong posterior sclerite of terminal apophysis linked to posterior tegular base, radix or embolus (Fig. 1) and Senglet (2011: figs 13-14, 133). Massive embolar radix with a solid junction to the embolus (Fig. 2). The intercalary sclerite represents an extension of the basal sector of the embolar base, giving a ventral mobile joint to a terminal apophysis with a posterior fixation. All species with a different palp morphology need to be transferred to other genera. Among these species a monophyletic group is here recognised and separated into the new genus *Civizelotes* gen. n.

MATERIAL AND METHODS

Except for the ♀ syntypes of *Zelotes argoliensis* and the syntype of *Z. medianus* (Denis) = *Civizelotes dentatidens*, all material was collected by myself. Measurements are in millimetres. Vulvae were examined in lactic acid on an excavated microscopic slide. Holotypes and paratypes of the species described in here are deposited in the Natural History Museum of Geneva (MHNG); the other material, if not indicated

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otherwise, remains in my private collection. For details on rearing and cryo-fixing of mated spiders see Senglet (2004: 87).

The typical leg spination according to Platnick & Shadab (1983) is: Femora; I, II d110, p001; III, IV d110, p011, r011; patella III r010; tibiae: III p111, v222, r011; IV p111, v222, r111; metatarsi: I, II v200; III p122, v221, r112; IV p122, v220, r122. Only differences from this pattern are given in the text. AME, ALE, PME, PLE and MOQ refer to anterior median, anterior lateral, posterior median, posterior lateral eyes and to the median ocular quadrangle (with eyes included).

Terminology of genital structures follows Senglet (2004: 88-90) and Senglet (2011: 514).

TAXONOMY AND FAUNISTIC DATA

Genus ***Zelotes*** Gistel, 1848

TYPE SPECIES: *Melanophora subterranea* C. L. Koch 1833, subsequent designation.

***Zelotes fulvopilosus*-subgroup of *Z. thorelli*-group** (Senglet, 2011: 540)

Zelotes argoliensis (C. L. Koch, 1839) Figs 3-10

Melanophora argoliensis C. L. Koch, 1839: 72, fig. 483 (description of ♀). – L. Koch, 1866: 174, pl.7, fig. 113 (♀).

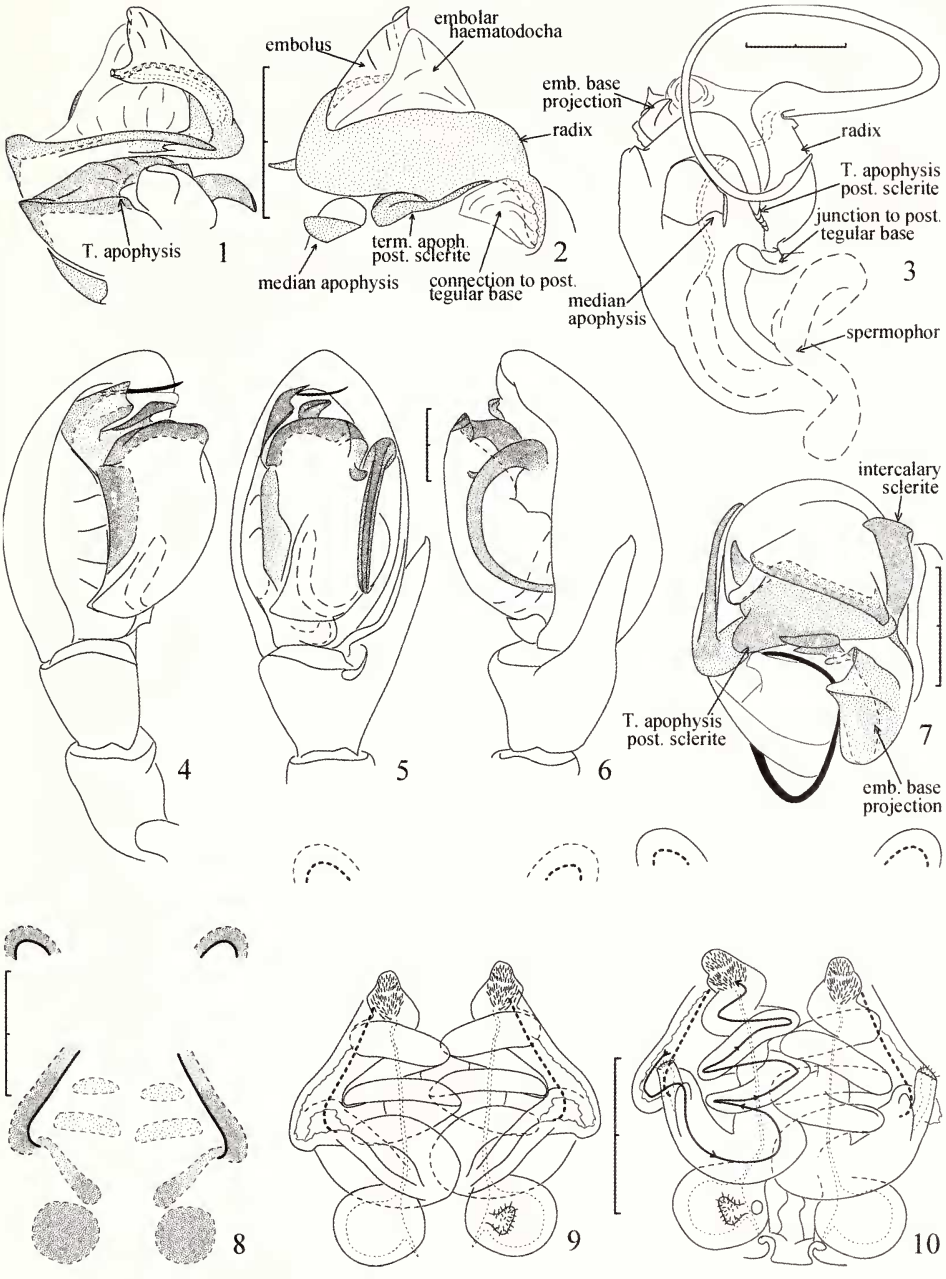
TYPE MATERIAL: BM1915.3.5.5759, Coll. Koch, Natural History Museum (London); 2 ♀ syntypes from Greece; received on loan through the courtesy of Mrs Janet Beccaloni.

OTHER MATERIAL EXAMINED: GREECE, Peloponnesus, Arcadia, Mt Mainalos, refuge, stones, 37°39'N 22°16'E; 2 ♂, 7 ♀ (last moults of ♂ 20.07 and 22.08, of 2 ♀ 26.08 and 07.09.2011); 25.05.2011.

DESCRIPTION: Large dark species. Prosoma dark brown, with black bristles. Opisthosoma black, covered with greyish adpressed hairs and black bristles. Legs dark brown; tarsi feebly lightened. Posterior eye row straight to slightly recurved

♂: Total length 5.20. Prosoma: 2.25 long, 1.85 wide, 0.90 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.06, ALE 0.12, PME 0.07, PLE 0.12; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.07, ALE-PLE 0.07. MOQ length 0.26, front width 0.40, back width 0.42. Clypeus: 0.10 from AME, 0.08 from ALE. Pedipalp (Figs 3-7): Retrolateral tibial apophysis 2 times dorsal length of tibia. Patella dorsally longer than tibia. Tibia wider than long. Embolar base without connection to embolus, carrying a conical apical projection attached to embolar haematodocha, and a prolateral guide to embolus. Small hook of median apophysis half concealed by embolus. Very large, one-turn-coiled embolus reaching below proximal quarter of tegulum length. Posterior sclerite of terminal apophysis attached to base of embolar radix (Fig. 3), the latter linked through an intermediary junction to posterior tegular base. Tarsi I, II scopulate, metatarsi I, II only in apical 2/3. Leg spination: Tibiae III, r112; metatarsi III, VI v221. Scutum occupying 1/3 of opisthosoma length.

♀: Total length 6.26. Prosoma: 2.5 long, 2.00 wide, 1.08 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.07, ALE 0.12, PME 0.07, PLE 0.07; AME-AME 0.03, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.04, ALE-PLE 0.07. MOQ length 0.24, front width 0.36, back width 0.46. Clypeus: 0.10 from AME, 0.08



FIGS 1-10

(1-2) *Zelotes apricorum* (L. Koch), left male palp, cymbium removed. (1) Ventral view. (2) Dorsal view. (3-10) *Z. argoliensis* (C. L. Koch). (3-7) Left male palp. (3) Cleared, retrolateral view. (4) Prolateral view. (5) Ventral view. (6) Retrolateral view. (7) Cymbium removed, apical view. (8) Epigynum. (9) Vulva, ventral view. (10) Id., dorsal view. Bold lines indicate epigynal folds. Scale 0.2 mm.

from ALE. Epigynum (Fig. 8). Vulva (Figs 9-10): Copulatory duct loosely coiled around the straight median duct. Tarsi and metatarsi I and II entirely scopulate. Leg spination: Tibiae III, r011; metatarsi II, v220 ; III, VI v221.

***Zelotes petrensis*-group** (Senglet, 2004: 94, 111)

Zelotes balcanicus Deltshev, 2006, removed from the synonymy of *Z. argoliensis* Figs 11-12

Zelotes balcanicus Deltshev, in Deltshev *et al.*, 2006: 711, figs 2-11 (description of ♂ and ♀).
Zelotes baram Levy, 2009: 31, figs 67-70 (description of ♂ and ♀) **syn. n.**
Zelotes argoliensis. – Chatzaki, 2010: 54, figs 25-30 (♀, synonymy of *Z. balcanicus*) (misidentification).

MATERIAL EXAMINED: GREECE, Macedonia, Thessaloniki, Loutra Apollonias, litter, 40°39'N 23°24'E; 1 ♀; 09.09.2004. – South of Stanos /Arnaia, *Pinus* litter, 40°32'N 23°35'E; 1 ♂, 1 ♀; 09.09.2004. – Epiros, Thesprotia, Arghyrotopos, litter, 39°25'N 20°19'E; 1 ♂ (last moult 05.09.2004); 31.08.2004. – Sterea Hellas, Phthiotidas, south-west of Theologos, *Pinus* litter, 38°39'N 23°11'E; 2 ♀ (last moults 07. and 18.09.2011); 17.06.2011. – Peloponnesus, Messenia, Kiparissia, leaf litter, 37°15'N 21°40'E; 1 ♀; 03.06.2011. – Laconia, East of Lira, *Pinus* litter, 36°39'N 22°58'E; 1 ♂, 1 ♀ (with palpus in microvial); 03.10.2004. – Argolida, above Platani, 700 m, 37°48'N 22°30'E; 3 ♂, 3 ♀ (last moults of ♂ 22.08.-02.09, of ♀ 02.08.-22.09.2011); 21.05.2011.

DESCRIPTION: See Deltshev *et al.* (2006: 711).

REMARKS: Contrary to its original placement in the *Z. subterraneus*-group, *Z. balcanicus* is a member of the *Z. petrensis*-group (Senglet, 2004: 94, 111), as can be seen from the structure of the embolar base. A strong mesal apophysis and a posterior sickle-shaped lamina on the embolar base (Figs 11-12) are present. A week direct sinuous link to the embolus is another basic character of the group. Lateral additional pockets are present on the epigynum. The absence of a membranous or sclerotized embolar projection is an indication that this species belongs to a distinct sub-group.

Genus ***Drassyllus*** Chamberlin, 1922

TYPE SPECIES: *Drassyllus fallens* Chamberlin, 1922, original designation.

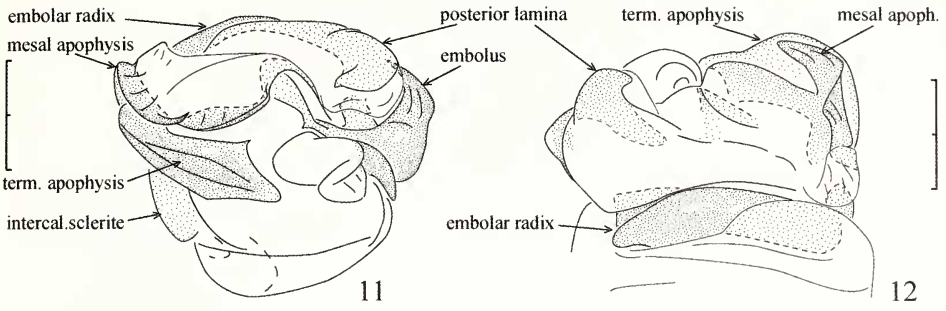
Drassyllus villicoides (Giltay, 1932) **comb. n.** Figs 13-19

Zelotes villicoides Giltay, 1932: 28, fig. 18 (description of ♂). – Giltay, 1933: 6, pl. 3, fig. 4 (♂).

MATERIAL EXAMINED: GREECE, Macedonia, Thessaloniki, east of Chortiatis, stones in pasture, 40°37'N 23°07'E; 1 ♂ (last moult 02.06.2005); 07.09.2004. – West of Aghios Vassilios, 40°40'N 23°05'E; 1 ♂, 2 ♀ (last moults of ♂ 16.06.2005, of ♀ 08 and 14.05.2005); 08.09.2004. – Aghios Vassilios, 40°40'N 23°07'E; 1 ♀; 13.05.1968. – Loutra Apollonias, litter, 40°39'N 23°24'E; 1 ♂, 1 ♀ (last moults of ♂ 23.05.2005, of ♀ 09.07.2005); 09.09.2004. – Sterea Hellas, Phthiotidas, west of Malesina, 38°37'N 23°13'E; 6 ♂, 4 ♀ (last moults of ♂ 16.04.-15.05.2005, of ♀ 16.04.-28.05.2005); 25.09.2004. – Near Malesina, 38°37'N 23°13'E; 1 ♀; 21.05.1998. – Peloponnesus, Laconia, south-west of Mavrovouni, litter on sand, 36°43'N 22°32'E; 1 ♀; 26.05.2011. – Argolida, east of Ligourion, Lentiscus litter, 37°38'N 23°04'E; 1 ♂, 3 ♀ (last moults of ♂ 24.04.2005, of ♀ 17.04.-24.05.2005); 01.10.2004.

DESCRIPTION: Prosoma dark brown, with tiny hairs. Opisthosoma black, with short adpressed hairs. Legs dark brown except for tawny-yellow tarsi and metatarsi. Tarsi and metatarsi I, II scopulate. Average size about 3/4 that of *D. praeficus*.

♂: Total length 5.00. Prosoma: 1.95 long, 1.62 wide, 0.77 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.07, ALE 0.08, PME 0.08, PLE 0.07;



FIGS 11-12

Zelotes balcanicus Deltshev. (11) Left male palp, cymbium removed, anterior-apical view. (12) Id., dorsal view. Scale 0.2 mm.

AME-AME 0.03, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.04, ALE-PLE 0.06. MOQ length 0.20, front width 0.37, back width 0.43. Clypeus: 0.11 from AME, 0.07 from ALE. Retrolateral tibial apophysis bent dorsally, shorter than dorsal length of tibia. Pedipalp (Figs 13-16): Tibia short; its dorsal length about equal to lateral width. Patella dorsally longer than tibia. Scutum occupying 1/3 of opisthosoma length. Close to *D. praeficus*, differing by the thin narrow triangular terminal apophysis and the slender embolar radix apophysis (Figs 14, 16); in *D. praeficus* (Fig. 20) the latter is stronger and more cone-shaped.

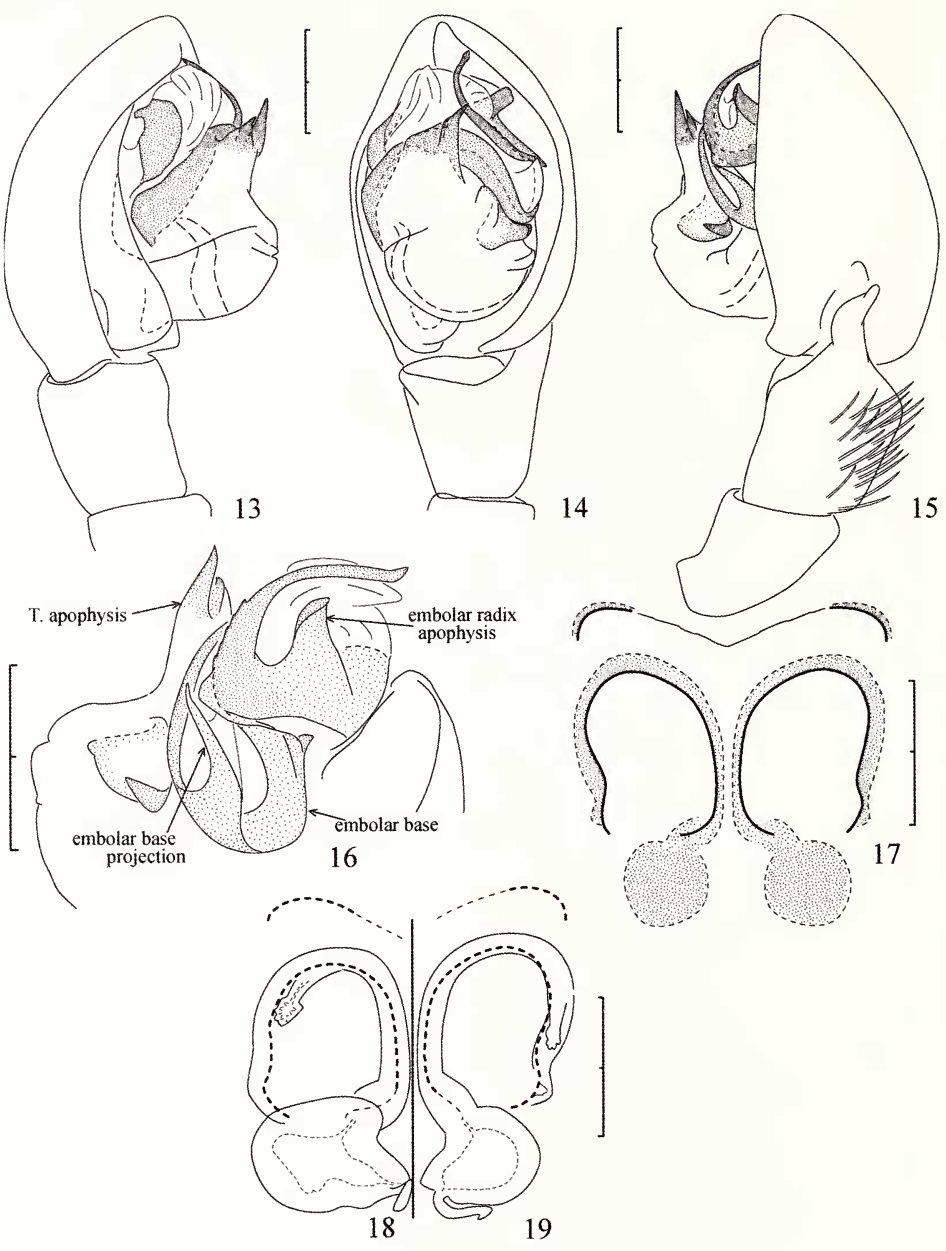
♀: Total length 5.66. Prosoma: 2.10 long, 1.58 wide, 0.80 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.08, PLE 0.08; AME-AME 0.08, AME-ALE 0.01, PME-PME 0.02, PME-PLE 0.05, ALE-PLE 0.05. MOQ length 0.24, front width 0.37, back width 0.43. Clypeus: 0.11 from AME, 0.06 from ALE. Epigynum and vulva (Figs 17-19). Anterior anchoring pockets at a distance from the anterior epigynal margins; in *D. praeficus* (Fig. 21) pocket pressed to the external margin of the epigynum. Modest widening of the lateral fold; median fold reaching the spermatheque in median-anterior position, there covered by cuticle (Figs 18-19); in *D. praeficus* (Fig. 21) posterior strong widening of the lateral fold; median fold reaching the spermatheque in uncovered lateral-anterior position.

BIOLOGY: Adult males can be collected from April to June.

Drassyllus praeficus (L. Koch, 1866) Figs 20-21

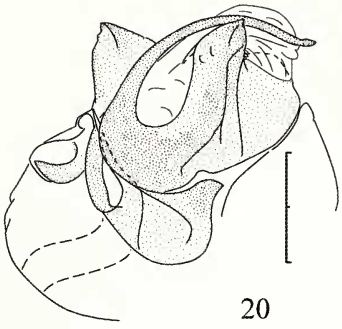
Melanophora praeficus L. Koch, 1866: 155, pl. 6, figs 97-99 (description of ♂ and ♀).
For previous synonymy see Platnick (2012).

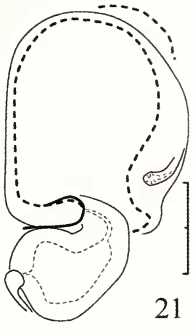
MATERIAL EXAMINED: SWITZERLAND, Vaud, Vich /Nyon; 1 ♂, 1 ♀; 01.-30.05.1996. – SPAIN: Lac de Sanabria, 42°06'N 06°41'W and 42°07'N 06°44'W; 1 ♀; 26.08.1971. – Avila. Road to parking Gredos /Hoyo del Espino, 1470 m, 40°18'N 05°12'W; 1 ♂ (last moult 28.12.2009); 18.06.2009. – Andalusia, Granada, Prado de Zangarrilla (S. Nevada), stones, pasture, 2000 m., 37°07'N 03°26'W; 1 ♀; 29.05.2002. – FRANCE, Provence / Cote d'Azur, Var, Montauroux; 1 ♀; 07.06.1971. – Languedoc, Pyrénées Orientales, Prats de Mollo, 700 m., 42°24'N 02°25'E; 3 ♀; 29.06.2001. – Latour de Carol, 42°28'N 01°53'E; 1 ♀; 06.07.2001. – Above Mas Franco / Enveigt, 42°30'N 01°53'E; 1 ♀; 06.07.2001. – ANDORRA, La Rabassa, 2000 m, 42°26'N 01°32'E; 2 ♀ (last moult of 1 ♀ 24.02.2002); 08.07.2001. – West of St Julià



FIGS 13-19

Drassyllus villicoides (Giltay). (13-16) Left male palp. (13) Prolateral view. (14) Ventral view. (15) Retrolateral view. (16) Cymbium discarded, retrolateral view. (17) Epigynum. (18-19) Two vulvae, dorsal view, same population.





FIGS 20-21

D. praeficus. (20) Left male palp, cymbium removed, retrolateral view. (21) Left side of vulva, ventral view. Bold lines indicate epigynal folds. Scale 0.2 mm.

de Loria, schist litter, 42°27'N 01°28'E; 3 ♀ (last moults of 2 ♀ 05 and 08.06.2004); 27.05.2004. – GREECE, Macedonia, Serres, above Oreini, 1200 m, stones, 41°14'N 23°35'E; 1 ♀; 30.06.2011. – Thessaloniki, west of Aghios Vassilios, 40°40'N 23°05'E; 1 ♂, 1 ♀ (last moults of ♂ 11.06, of ♀ 09.06.2005); 08.09.2004. – Same; 4 ♀; 31.05.2008. – East of Aghios Vassilios, litter, 40°40'N 23°07'E; 2 ♂ (last moults 17 and 20.06.2005); 08.09.2004. – Same; 2 ♂, 4 ♀; 13.05.1968. – Same; 1 ♀; 28.05.1982. – Same, 40°40'N 23°07'E; 4 ♀; 14.06.1998. – Thessaloniki, 40°43'N 22°58'E; 1 ♀; 13.-18.05.1968. – Kastoria, north of Kastoria (pass), 40°35'N 21°18'E; 1 ♀; 20.06.1998. – Peloponnesus, Achaia, Kato Alissos, 38°09'N 21°35'E; 3 ♀ (last moult of 1 ♀ 10.05.1998); 29.04.1998. – Arla, 38°04'N 21°36'E; 1 ♀ (last moult of ♀ 05.05.1998); 30.04.1998. – Argolida, east of Myli / Nauplie, leaf litter, 37°35'N 22°44'E; 1 ♀ (last moult 03.06.2005); 01.10.2004. – Cyclades, Paros, Sta Maria /Naoussa, (Salicornia), 37°08'N 25°17'E; 1 ♀; 02.06.1998. – Crete, Chania, Omalos haut plateau, stones, 35°20'N 23°53'E; 2 ♂, 2 ♀ (last moults of ♂ 01.01 and 04.01, of ♀ 31.12.1999); 07.10.1999. – Episkopi, litter, soil crevices, 35°30'N 23°46'E; 1 ♀ (last moult 14.01.2000); 10.10.1999. – Rethimnon, Koxare /Spili, irigated vegetation, 35°14'N 24°28'E; 1 ♂, 2 ♀ (last moults of ♂ 30.12.1999, of ♀ 08.01.2000); 03.10.1999. – Choumerion / Pérama, 35°21'N 24°44'E; 1 ♂ (last moult 04.01.2000); 05.10.1999. – Missiria /Rethimnon, leaf litter, soil crevices, 35°22'N 24°31'E; 2 ♂; 06.10.1999. – Lassithi, Kato Metochi Lassithiou, 35°11'N 25°26'E; 2 ♂, 2 ♀ (with palpus in microvial, last moults of ♂ 25 and 30.12.1999, of ♀ 01.01 and 06.01.2000); 25.09.1999. – ROMANIA, Dobrogea, Constanca, Baneasa; 1 ♂ (with palpus in microvial); 30.05.1972. – Adamclisi; 1 ♂; 31.05.1972. – Mangalia; 2 ♀; 02.06.1972. – Techirghiol; 1 ♀; 03.06.1972. – BULGARIA, Razgrad, Hlebarovo; 1 ♀; 08.07.1972. – Varna, Slatni Pjasaci; 1 ♀; 11.07.1972. – Burgas, Obzor; 3 ♀; 14.07.1972. – Karnobat; 2 ♀; 15.07.1972. – Plovdiv, Backovo; 1 ♀; 21.07.1972. – IRAN, Esfahan, Lorestan, Dizgarán, 33°44'N 46°59'E; 3 ♀; 16.05.1974. – Fars, near Ghaderábád, 30°22'N 53°18'E; 1 ♀; 11.06.1974. – Khorasan, east of Chaman Bid, 37°26'N 56°37'E; 1 ♀; 14.07.1974.

DESCRIPTION: See Grimm (1985: 267, figs. 317, 319-320).

Drassyllus lutetianus (L. Koch, 1866)

Melanophora lutetianus L. Koch, 1866: 157, pl. 6, fig. 100 (description of ♀).
For previous synonymy see Platnick (2012).

MATERIAL EXAMINED: GREECE, Peloponnesus, Argolida, East of Myli /Nauplie, leaf litter, 37°35'N 22°44'E; 2 ♀ (last moults 09 and 29.05.2005); 01.10.2004. – FRANCE, Corse, Sud Corse, Solenzara: 1 ♀; 24.05.1971. – ITALIA, Sardinia, Sassari, Platamona / Porto Torres, damp leaf litter; 2 ♀; 25.05.1999. – Ozieri, damp vegetation; 2 ♀; 28.05.1999. – ROMANIA,

Dobrogea, Tulcea, Badabag; 1 ♀; 05.06.1972. – Murighiol; 1 ♀; 06.06.1972. – Constan¸a, Baneasa; 1 ♂; 30.05.1972. – BULGARIA, Razgrad, Hlebarovo; 1 ♀; 08.07.1972.

DESCRIPTION: See Grimm (1985: 264, figs 8b, 315, 325-326).

Drassyllus pusillus (C. L. Koch, 1833)

Melanophora pusillus C. L. Koch, 1833: 120, pl. 22.
For previous synonymy see Platnick (2012).

MATERIAL EXAMINED: SWITZERLAND, Vaud, Vich /Nyon, 46°26'N 06°15'E; 1 ♂ (with palpus in microvial); 02.05.2004. – Vich /Nyon; 2 ♀ (with vulva in microvial); 01.05.1996. – GREECE, Macedonia, Serres, Mt Vrondos (Laïlia) 1780 m, stones, 41°16'N 23°36'E; 1 ♀; 29.06.2011. – SPAIN, Castilla / Leon, Avila, Parking Gredos / Hoyo del Espino, 1780 m, pasture) 40°16'N 05°14'W; 2 ♀; 18.06.2009. – Nueva Castilla / La Mancha, Cuenca, Santa Cruz de Moya, 39°57'N 01°13'W; 1 ♀; 24.06.1971. – Palomera / Cuenca, 40°04'N 02°03'W; 3 ♂; 27.06.1971. – Andalusia, Granada, Puerto de la Ragua, 2000 m., 37°07'N 03°02'W; 1 ♀; 17.07.1971. – IRAN, Azerbaidjan, Eastern Azerbaidjan, West of Bostanábád, 1900 m, 37°55'N 46°42'E; 1 ♂; 07.06.1975.

DESCRIPTION: See Grimm (1985: 274, figs 316, 327-328).

Genus *Civizelotes* gen. n.

TYPE SPECIES: *Prosthesima civica* Simon, 1878, designated herewith.

ETYMOLOGY: The first four letters of the type species are added as a prefix to *Zelotes*.

DIAGNOSIS: Embolar radix originating from the posterior margin of the tegulum, terminating at level of embolus in a large plate of bowl (Figs 47, 53-54, 62). Intercalary sclerite absent. Terminal apophysis without posterior sclerite, or reduced. Long embolus type. Leg spination: Femora IV p001, r001; metatarsi II v220.

REMARKS: *Zelotes apricorum* (Figs 1-2) shows both the embolar radix and the posterior sclerite of the terminal apophysis in *Zelotes* str. s.

KEY TO THE *CIVIZELOTES*-GROUPS

1a Embolar base long, with a retrolateral loop (Figs 31, 44). Epigynal plate narrowed in its centre . . . . . *C. civicus*-group
1b Embolar base vestigial. Epigynal plate in anterior sector (Fig. 66) . . . . . *C. gracilis*-group
1c Embolar base straight (Figs 53, 68). Epigynal plate long or a small atrium in anterior position 2
2a Terminal apophysis present; embolar base with a ventral expansion terminating in a large hook (Figs 50-52). Epigynal plate long and triangular (Fig. 55) . . . . . *C. dentatidens*
2b No terminal apophysis; embolar base without ventral expansion. Epigynal plate a small atrium in anterior position . . . . . *C. caucasius*-group

***Civizelotes civicus*-group**

DEFINITION: Light coloured spiders. Male palp: A terminal apophysis present but without posterior sclerite. Strongly developed transverse embolar base forming a

retrolateral loop (Figs 44, 47). Embolar radix visible prolaterally, with a large dorsal-apical bowl (Figs 31, 43). Epigynal plate narrowed in its centre (Figs 33, 35, 48). PME larger than PLE; posterior eye-row procurved; its eyes separated by less than 40% of their diameter. Of particular interest in this group is the use of the two folds of the embolar base to hold the bulbus on the epigynum (Figs 22, 26-27).

SPECIES INCLUDED: *C. civicus* (Simon, 1878) **comb. n.**, *C. medianus* (Denis, 1935) **comb. n.**, and *C. medianoides* sp. n.

MATING MECHANISM: *Civizelotes medianus* inserts the left pedipalp into the left side of the epigynum (Figs 22-29). The retrolateral tibial apophysis is inserted into the right anterior anchoring pocket. The erected embolar base (Figs 22-23) is forming two lobes, the apical and retrolateral folds. The wide retrolateral fold is inserted in the left anterior anchoring pocket of the epigynum, and the other below the left lateral epigynal fold (Figs 26-27).

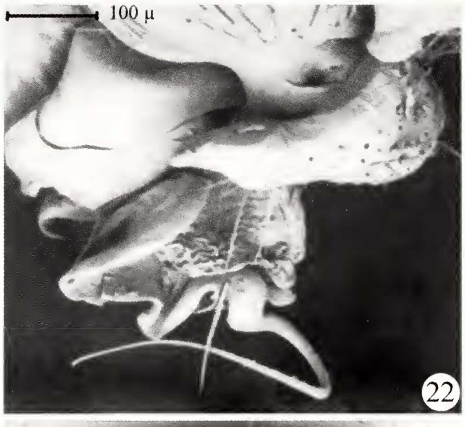
KEY TO THE SPECIES OF THE *CIVIZELOTES CIVICUS*-GROUP

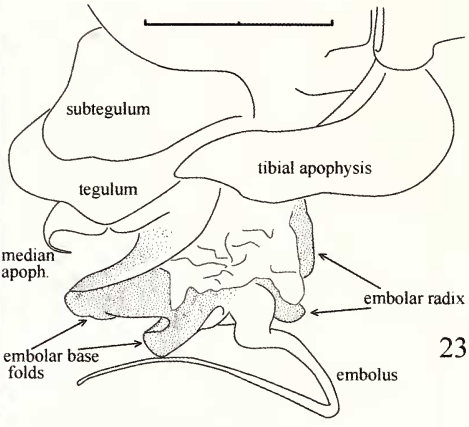
♂ 1
♀ 3
1a Apical margin of embolar base with distal tooth (Figs 44, 47) ..... *C. medianoides* sp. n.
1b Apical margin of embolar base convex (Figs 31, 36) 2
2a Prolateral-apical part of embolar radix strongly developed (Fig. 31) ..... *C. medianus*
2b Prolateral-apical part of embolar radix feebly developed (Fig. 36) .. *C. civicus*
3a Lateral anterior epigynal folds straight, with a posterior bend (Figs 33, 48) .. 4
3b Anterior sector of epigynal folds curved, with visible median ducts (Fig. 35) ..... *C. civicus*
4a Lateral anterior epigynal folds nearly parallel (Fig. 33) ..... *C. medianus*
4b Lateral anterior epigynal folds diverging (Fig. 48) ..... *C. medianoides* sp. n.

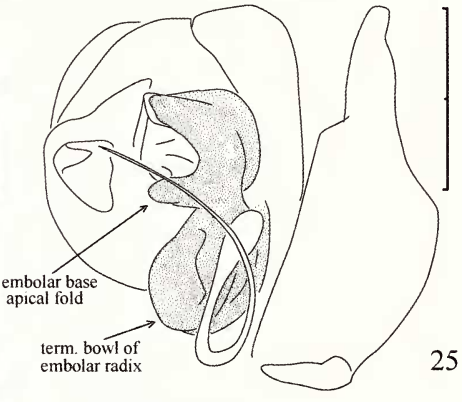
Civizelotes medianus (Denis, 1935) **comb. n.** Figs 22-34

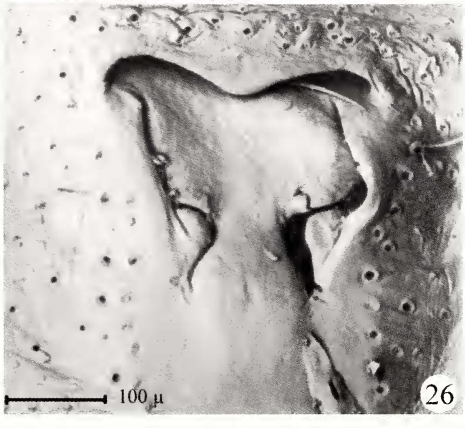
Zelotes medianus Denis, 1935: 118, figs 4-5 (description of ♂, not ♀, fig. 3 = *Z. dentatidens*). – Jézéquel, 1962: 606, fig. 31 (♀). – Soyer, 1967: 275, figs 5-7 (♀ may be the ♀ of *Z. dentatidens*).

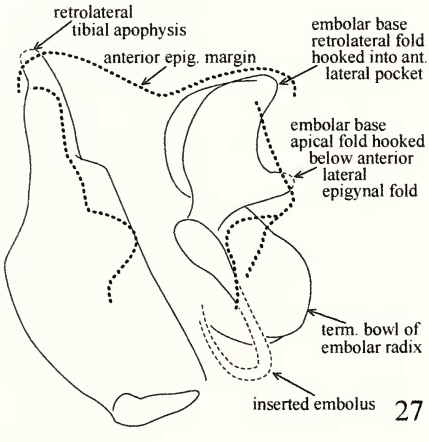
MATERIAL EXAMINED: SPAIN, Catalonia, Gerona, Val de Blanya, (4 km south of Capsacosta pass), 42°14'N 02°23'E; 3 ♂, 4 ♀ (last moults of 2 ♂ 06 and 27.06.2004, of ♀ 01.06.-24.07.2004); 25.05.2004. – Barcelona, Alto de los Bruch, 41°36'N 01°45'E; 1 ♂; 13.06.1971. – Levant / Murcia, Murcia, Sierra de Espuña / Lorca, evergreen oak leaves, 37°55'N 01°40'W; 4 ♂, 3 ♀ (last moult of 1 ♀ 10.06.2002); 18.05.2002. – Nueva Castilla / La Mancha, Albacete, La Gineta (rio Júcar), 39°11'N 01°58'W; 1 ♀; 28.06.1971. – Andalusia, Granada, Puebla de Don Fadrique, Pinus & rosemary litter, 38°00'N 02°27'W; 1 ♀; 19.05.2002. – La Vidriera /Puerto del Pinar, 38°03'N 02°34'W; 4 ♂, 2 ♀ (last moults of 2 ♂ 23 and 27.05.2002, of ♀ 22. and 31.05.2002); 20.05.2002. – La Calahora, pine forest, 37°10'N 03°03'W; 2 ♂; 23.05.2002. – Road puerto de la Ragua, pine forest, 37°09'N 03°03'W; 2 ♂, 1 ♀; 24.05.2002. – above Capileira, 1700 m, 36°58'N 03°21'W; 1 ♂; 27.05.2002. – Collado del Muerto (S. Nevada), 1450 m, 37°08'N 03°28'W; 1 ♂, 1 ♀ (last moults of ♂ 31.05.2002, ♀ 31.05.2002); 29.05.2002. – Jaen, Sierra de Cazorla (Fuente del Oso), 37°55'N 02°56'W; 2 ♂, 1 ♀ (last moult of ♀ 31.05.2002); 21.05.2002. – Same; 1 ♀; 23.07.1971. – Sierra de Cazorla (above Parador), stones, Pinus, 37°55'N 02°57'W; 1 ♂, 2 ♀ (last moult of ♂ 25.05.2002, ♀ 23 and 30.05.2002);





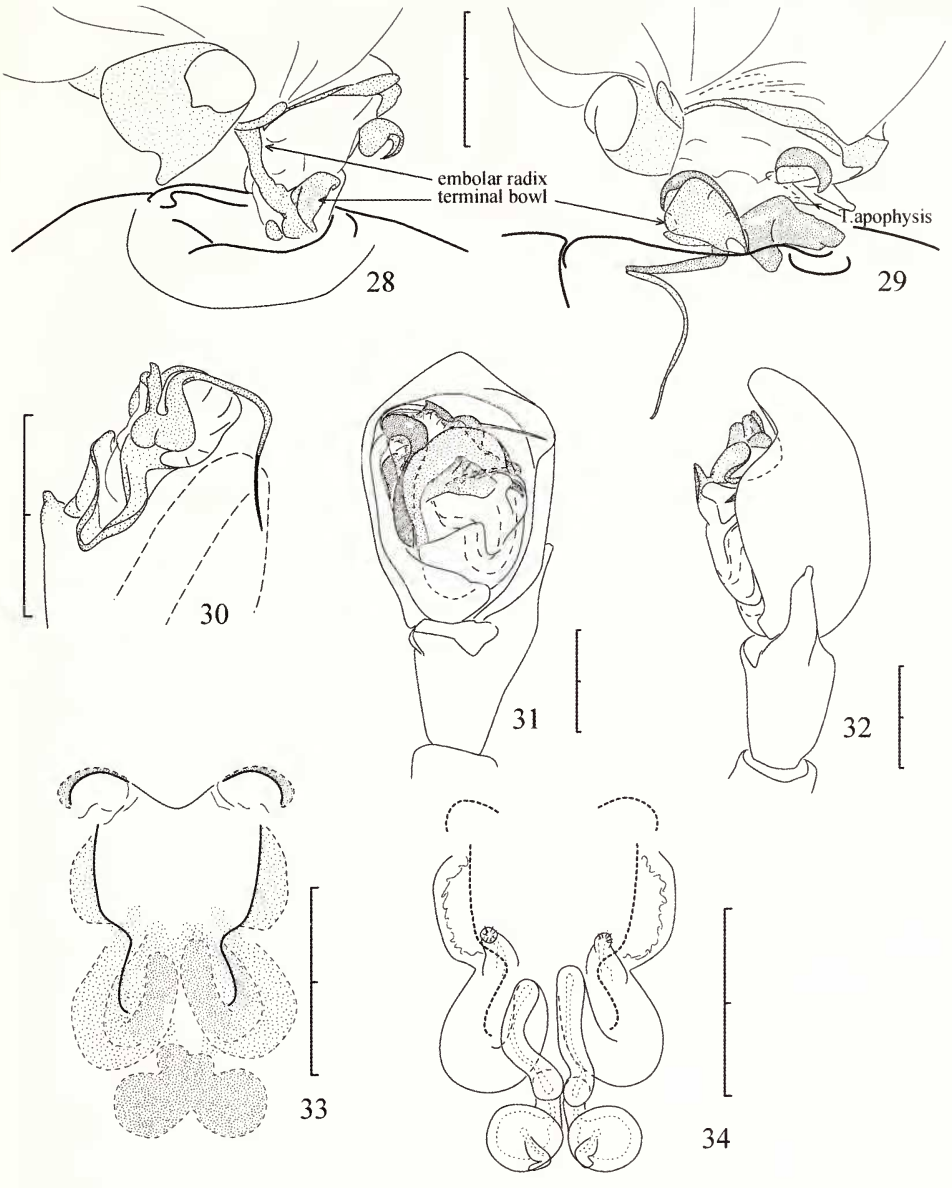






FIGS 22-27

Civizelotes medianus (Denis), left male palp in copula. (22-23) Extracted male palp in anterior-lateral view. (24-25) Id., in apical view. (26) Epigynum, after extraction of palpal organ. (27) Id., palpal organ inserted. Bold lines indicate epigynal folds. Scale 0.2 mm.



FIGS 28-34

Civizelotes medianus (Denis), (28-29) In copula. (28) Posterior view. (29) Lateral view. (30) Palpal organ, retrolateral view. (31) Left male palp, ventral view. (32) Id., retrolateral view. (33) Epigynum. (34) Vulva, dorsal view. Bold lines indicate epigynal folds. Scale 0.2 mm.

22.05.2002. – Sierra de Cazorla (Linarejas), 37°55'N 02°55'W; 1 ♂; 22.05.2002. – Cañada de las Hazadillas, Pinus, 37°39'N 03°43'W; 2 ♂; 30.05.2002. – Sevilla, east of Cazalla de la Sierra, deep leaf litter, 37°57'N 05°45'W; 2 ♂, 3 ♀ (last moult of 1 ♀ 07.06.2009); 04.06.2009. – FRANCE, Languedoc, Aude, Bedos pass / Mouthoumet, 42°58'N 02°34'E; 2 ♀ (last moult of 1 ♀ 01.06.2004); 30.05.2004. – Eastern Pyrenees, Les Abeilles / Banyuls, 42°28'N 03°04'E;

1 ♂, 1 ♀; 28.06.2001. – Cerbère, stones in Cistus, 42°27'N 03°09'E; 3 ♂, 1 ♀ (last moult of 1 ♂ 05.06.2004); 22.05.2004. – ANDORRA, St Julià de Loria, oak litter, 42°27'N 01°29'E; 1 ♀ (last moult of ♀ 01.07.2004); 25.05.2004. – West of St Julià de Loria, litter, vegetation, 42°27'N 01°28'E; 3 ♂, 1 ♀ (last moult of ♀ 14.06.2004); 27.05.2004.

DESCRIPTION: Prosoma tawny, with short adpressed hair and sparse bristles. Opisthosoma blackish, with short adpressed hairs and short to medium-long bristles. Legs dark tawny to brownish. Leg spination: Femora IV p001, r001; metatarsi II V220. Tarsi I, II scopulate.

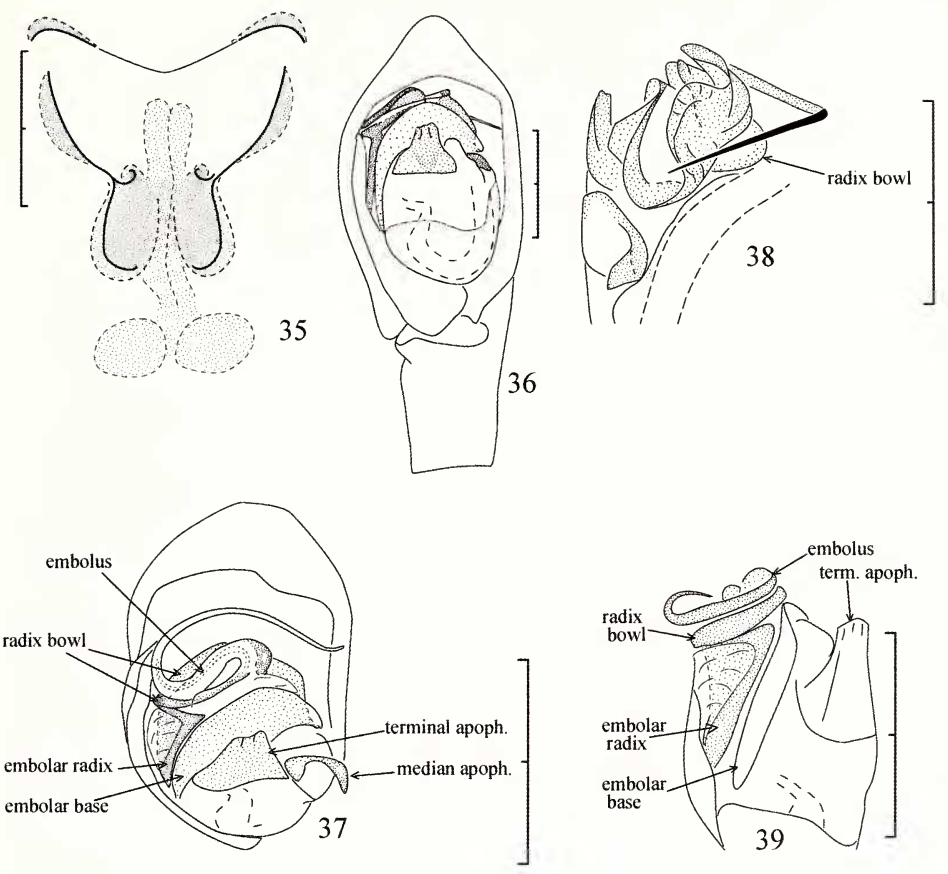
♂♂ from the same locality: Total length 4.12 (3.66). Prosoma: 1.80 (1.53) long, 1.40 (1.21) wide, 0.63 (0.58) wide at level of posterior eyes. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.07, PLE 0.09; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, ALE-PLE 0, 05. MOQ length 0.23, front width 0.33, back width 0.37. Clypeus: 0.07 from AME, 0.04 from ALE. Pedipalp (Figs 30-32): Retrolateral tibial apophysis shorter than tibial dorsal length. Patella dorsally longer than tibia. Superior margin of embolar base rounded in ventral view. Scutum occupying 1/4 of opisthosoma length.

♀♀ from the same locality: Total length 4.90 (4.10). Prosoma: 1.92 (1.6) long, 1.48 (1.2) wide, 0.72 (0.64) wide at level of posterior eyes. Eye sizes and interdis - tances: AME 0.08, ALE 0.11, PME 0.11, PLE 0.08; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, ALE-PLE 0.04. MOQ length 0.17, front width 0.35, back width 0.38. Clypeus: 0.06 from AME, 0.08 from ALE. Epigynum and vulva (Figs 33-34). Anterior sector of epigynal folds diverging feebly, posterior sector shorter than in *Z. medianus*.

Civizelotes civicus (Simon, 1878) **comb. n.** Figs 35-39

Prosthesima civica Simon, 1878: 80, pl. 14, fig. 20 (description of ♂ and ♀).
For previous synonymy see Platnick (2012).

MATERIAL EXAMINED: SPAIN, Catalonia, Barcelona, Alto de los Bruch, 41°36'N 01°45'E; 3 ♂; 13.06.1971. – Gelida, 41°27'N 01°51'E; 5 ♀; 14.06.1971. – Levant / Murcia, Valencia, Ayora, 39°03'N 01°03'W; 1 ♂; 20.06.1971. – Montroy, 39°20'N 00°35'W; 1 ♀; 22.06.1971. – Requena - Chera, 39°36'N 00°57'W and 39°32'N 01°00'W; 2 ♂, 1 ♀; 23.06.1971. – Alicante, Elda, 38°30'N 00°47'W; 2 ♀; 19.06.1971. – Murcia, Bullas, below vegetation, 38°02'N 01°39'W; 2 ♂; 18.05.2002. – Bullas, 38°02'N 01°39'W; 1 ♂, 5 ♀; 04.07.1971. – Caravaca, 38°05'N 01°52'W; 1 ♀; 05.07.1971. – Lac de Sanabria, 42°07'N 06°44'W and 42°06'N 06°41'W; 1 ♀; 26.08.1971. – Valladolid, Peñafiel, 41°35'N 04°08'W; 1 ♂, 1 ♀; 23.06.2002. – Salamanca, Puente Alagón /Sequeros, 40°30'N 05°57'W; 1 ♀; 13.08.1971. – Nueva Castilla / La Mancha, Madrid, Navalcarnero, 40°18'N 03°56'W; 1 ♂; 12.06.1969. – Aldea del Fresno (rio Alberche), 40°19'N 04°13'W; 1 ♂; 13.06.1969. – Cuenca, Santa Cruz de Moya, 39°57'N 01°13'W; 1 ♀; 24.06.1971. – Palomera /Cuenca, 40°04'N 02°03'W; 1 ♂; 27.06.1971. – Toledo, Escalona del Alberche, 40°10'N 04°24'W; 4 ♂, 2 ♀; 14.06.1969. – Urda /Consuegra, 39°25'N 03°42'W; 1 ♀; 12.08.1969. – Albacete, La Gineta (rio Jucar), fine leaf litter, 39°10'N 01°58'W; 1 ♂, 5 ♀ (last moults of 4 ♀ 20.-31.05.2002); 16.05.2002. – La Gineta (rio Júcar), 39°11'N 01°58'W; 2 ♀; 28.06.1971. – Hellin, 38°29'N 01°37'W; 1 ♀; 29.06.1971. – Ciudad Real, Ruidera, 38°56'N 02°51'W; 5 ♀; 07.08.1969. – Ojos del Guadiana /Daimiel, 39°08'N 03°34'W; 1 ♀; 13.08.1969. – Estremadura, Caceres, Jarandilla (rio Tietar), 40°01'N 05°37'W; 3 ♂, 1 ♀; 16.06.1969. – Badajoz, south of Monesterio, stones in vegetation, 38°03'N 06°14'W; 3 ♂, 3 ♀; 05.06.2009. – South of Venta del Culebrin / Monesterio, 37°58'N 06°14'W; 1 ♀; 19.06.1969. – Rio Sillo (Higuera la Real), 38°06'N 06°41'W; 1 ♀; 14.06.2009. – Andalusia, Granada, Prado de Zangarrilla (S. Nevada), stones, pasture, 2000 m, 37°07'N 03°26'W; 3 ♂, 5 ♀ (last moults of ♀ 27.05.-02.06.2002); 29.05.2002. – Puebla de Don Fadrique, 1000-1200 m, 38°00'N 02°27'E; 2



FIGS 35-39

Civizelotes civicus (Simon). (35) Epigynum. (36) Left male palp, ventral view. (37) Id., slightly expanded, ventral-apical view. (38) Id., cymbium discarded, retrolateral view. (39) Id., prolateral view. Bold lines indicate epigynal folds. Scale 0.2 mm.

♂, 6 ♀; 06.07.1971. – Pampaneira /Orgiva, 1200 m, 36°57'N 03°22'W; 2 ♀; 10.07.1971. – Caratauna /Orgiva, 36°56'N 03°25'W; 1 ♂, 6 ♀ (with palpus in microvial); 13.07.1971. – Capileira, 1500 m, 36°58'N 03°21'W; 1 ♂, 8 ♀; 10.07.1971. – Trevélez, 37°00'N 03°16'W; 1 ♀; 14.07.1971. – Huéneja, 37°11'N 02°56'W; 1 ♂, 6 ♀; 16.07.1971. – Lacalahora (Ferreira), 37°10'N 03°03'W; 4 ♀; 17.07.1971. – Guadix (Paulenca de G.), 37°19'N 03°09'W; 6 ♀; 18.07.1971. – Jaen, Sierra de Cazorla (Fuente del Oso), 37°55'N 02°56'W; 5 ♂; 21.05.2002. – Sierra de Cazorla (Fuente del Oso), 37°55'N 02°56'W; 1 ♀; 23.07.1971. – Sierra de Cazorla (El Sagreo), 37°57'N 03°57'W; 1 ♀; 22.07.1971. – Sierra de Cazorla (Guadalquivir), 37°58'N 03°55'W; 2 ♀; 24.07.1971. – Cañada de las Hazadillas, Pinus, 37°39'N 03°43'W; 4 ♂, 1 ♀ (last moult of ♀ 02.06.2002); 30.05.2002. – La Aliseda (Sierra de Andujar), 38°22'N 03°49'W; 2 ♂ (last moult of 1 ♂ 02.06.2009); 29.05.2009. – Hinojares / Cazorla, 37°43'N 02°59'W; 1 ♀; 19.07.1971. – Cordoba, Los Villares / Cordoba, Eucalyptus litter, 37°58'N 04°49'W; 3 $, 5 ♀ (last moults of 2 ♀ 12. and 19.06.2009); 31.05.2009. – Palma del Rio (Retortillo dam), leaf litter, 37°51'N 05°22'W; 1 ♂; 03.06.2009. – Malaga, Ronda, 36°46'N 05°13'W; 1 ♀; 21.07.1969. – Sevilla, La Minilla dam / El Ronquillo, 37°40'N 06°11'W; 2 ♀; 20.06.1969. – Alcala del Rio, 37°31'N 05°59'W; 1 ♀; 22.06.1969. – Castilblanco (road C.433), 37°41'N 05°59'W; 1 ♀;

23.06.1969. – El Real de la Jara - El Pintado, 37°57'N 06°03'W; 3 ♀; 03.07.1969. – Huelva, East of Aracena, 37°52'N 06°31'W; 1 ♂, 5 ♀; 07.06.2009. – Puerto Gil /Aracena, cork-oak leaf litter, 37°53'N 06°29'W; 1 ♂, 2 ♀; 07.06.2009. – Alajar /Aracena, 37°52'N 06°40'W; 2 ♂, 10 ♀ (with vulva in microvial); 07.07.1969. – Alajar 2 /Aracena, 37°53'N 06°40'W; 1 ♂, 1 ♀; 09.06.2009. – Fuenteheridos, deep leaf litter, 37°54'N 06°40'W; 2 ♂, 4 ♀; 12.06.2009. – Molino del rio Alajar, deep leaf litter, 37°52'N 06°40'W; 1 ♀; 13.06.2009. – Zalamea la Real, 37°41'N 06°39'W; 2 ♀; 10.07.1969. – PORTUGAL, Beira Alta, Guarda, Maceira / Fornos de Algodres, (Casal do Monte), 40°44'N 07°24'W; 1 ♀; 09.08.1971. – FRANCE, Provence / Cote d'Azur, Var, Cogolin; 2 ♀; 08.06.1971. – Languedoc, Eastern Pyrenees, Prats de Mollo, 700 m, 42°24'N 02°25'E; 1 ♀; 29.06.2001. – Arles sur Tech, 42°27'N 02°36'E; 1 ♀; 01.07.2001. – Latour de Carol, 42°28'N 01°53'E; 1 ♀; 06.07.2001. – ANDORRA, west of St Julià de Loria, 1400 m, schist litter, 42°27'N 01°28'E; 1 ♀; 08.07.2001. – Same; 2 ♂; 29.06.2002. – Same; 2 ♂, 2 ♀ (last moults of ♂ 31.05 and 27.06, of 1 ♀ 07.06.2004); 27.05.2004. – MOROCCO, Dayet Aaoua, 33°39'N 05°02'W; 1 ♀; 27.06.1967.

DESCRIPTION: See Grimm (1985: 80, pl. 14, Fig. 20).

***Civizelotes medianoides* sp. n.** Figs 40-49

HOLOTYPE: SPAIN, Andalusia, Cordoba, Alajar /Aracena, 37°52'N 06°41'W; ♂; 07.06.2002.

PARATYPES: Same locality as for holotype; 1 ♂, 1 ♀ (with vulva in microvial); 07.06.2002. – Alajar 1 /Aracena, cork oak leaf litter, 37°52'N 06°41'W; 5 ♂, 1 ♀ (last moult of ♀ 12.06.2009); 09.06.2009. – SPAIN, Andalusia, Cordoba, Breña dam, evergreen oaks litter, 37°51'N 05°04'W; 1 ♂ (last moult 10.06.2002); 01.06.2002. – Huelva, Linares de la Sierra /Aracena, 37°54'N 06°37'W; 1 ♀; 05.07.1969. – Same; 2 ♂; 05.06.2002. – Huelva, north of La Nava, schist litter, 38°00'N 06°45'W; 1 ♂, 1 ♀ (last moult of ♀ 10.08.2002); 09.06.2002.

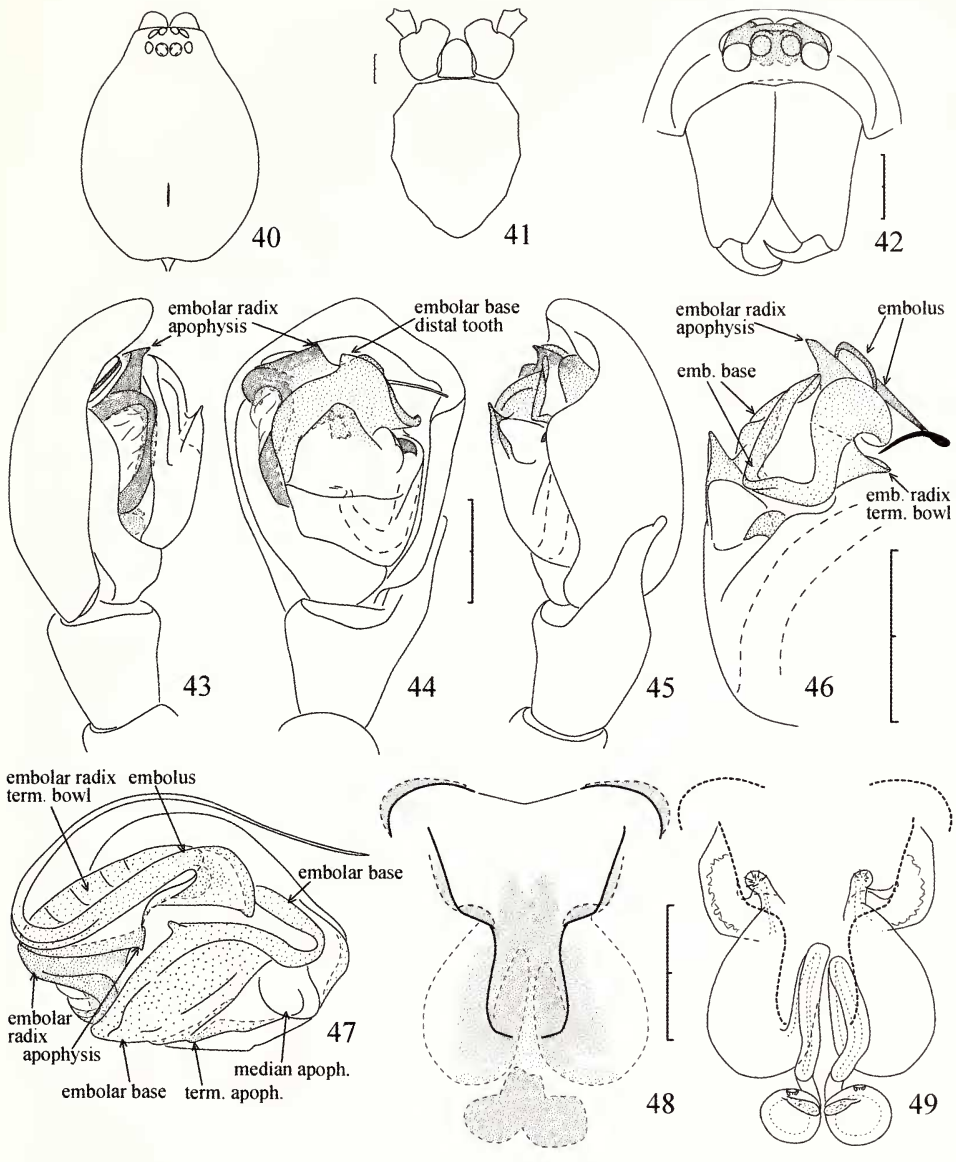
OTHER MATERIAL EXAMINED: SPAIN, Cordoba, Alajar /Aracena, 37°52'N 06°40'W; 1 ♀; 07.07.1969. – Puerto de Alajar, 820 m, evergreen oak leaf litter, 37°53'N 06°40'W; 3 ♂, 1 ♀ (last moult of ♀ 22.06.2009); 10.06.2009. – Molino del rio Alajar, deep leaf litter, 37°52'N 06°40'W; 1 ♂, 3 ♀; 13.06.2009. – Palma del Rio (Retortillo dam), leaf litter, 37°51'N 05°22'W; 1 ♂; 03.06.2009. – Road Posada-Villaviciosa 2, stones in Pinus litter, 37°00'N 05°05'W; 1 ♀; 02.06.2009. – Estremadura, Badajoz, Rio Sillo (Higuera la Real), 38°06'N 06°41'W; 2 ♀ (last moult of 1 ♀ 16.06.2009); 14.06.2009.

ETYMOLOGY: The species name reflects the close relationship with *C. medianus* (Denis).

DESCRIPTION: Prosoma and legs tawny. Opisthosoma grey, with darker hairs. Tarsi I, II scopulate. Leg spination: Femora IV p001, r001; metatarsi II v220.

♂: Total length 4.50. Prosoma: 2.00 long, 1.50 wide, 0.69 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.08, ALE 0.10, PME 0.08, PLE 0.08; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.04, ALE-PLE 0.04. MOQ length 0.27, front width 0.36, back width 0.40. Clypeus: 0.08 from AME, 0.06 from ALE. Pedipalp (43-47): Patella and retrolateral tibial apophysis longer than dorsal length of tibia. In ventral view a small conical apophysis visible on superior ventral margin of embolar base. Scutum occupying 1/5 of opisthosoma length.

♀: Total length 4.75. Prosoma: 2.22 long, 1.58 wide, 0.81 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.08, ALE 011, PME 0.10, PLE 0.10; AME-AME 0.04, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.04, ALE-PLE 0.04. MOQ length 0.29, front width 0.40, back width 0.43. Clypeus: 0.08 from AME, 0.06 from ALE. Epigynum (Fig. 48): Median narrowing of lateral folds greater than in *C. medianus*. Vulva (Fig. 49).



FIGS 40-49

Civizelotes medianoides sp. n., male. (40) Carapace. (41) Sternum. (42) Male chelicerae and ocular group, anterior view. (43) Left male palp, prolateral view. (44) Id., ventral view. (45) Id., retrolateral view. (46) Id., cymbium discarded, retrolateral view. (47) Id., apical view. (48) Epigynum. (49) Vulva, dorsal view. Bold lines indicate epigynal folds. Scale 0.2 mm.

Civizelotes dentatidens (Simon, 1914) **comb. n.** Figs 50-57

Zelotes dentatidens Simon, 1914: 156, 217, fig. 293 (description of ♂).
Z. medianus Denis, 1935: 118, fig. 3 (description of ♂, not figs 4-5 = *Z. medianus*). – Soyer, 1967: 275, figs 1-4 (not figs 5-7 = *Z. medianus*).

MATERIAL EXAMINED: Museum National d'Histoire Naturelle, Paris, 1 slide PM26 (syntype of *Z. medianus* Denis), 1 vulva. – SPAIN, Catalonia, Gerona, Cap de Creus, below rosemary, Cistus, Erica, 42°19'N 03°17'E; 1 ♂ (last moult 08.06.2004); 24.05.2004. – Estremadura, Caceres, Jarandilla (rio Tietar), 40°01'N 05°37'W; 1 ♀; 16.06.1969. – Andalusia, Granada, La Calahora, pine forest, 37°10'N 03°03'W; 2 ♀ (with 1/2 vulva in microvial); 23.05.2002.

DESCRIPTION of ♂: Femora, patellae and tibiae of legs blackish. Prosoma orange-yellow. Opisthosoma dorsally black, with black hairs, ventrally grey, with very short hairs. Leg spination: Femora IV p001, r001; metatarsi II v220. Total length 4.3. Prosoma 1.74 long, 1.33 wide, 0.61 wide at level of posterior eyes. Eye size and interdistances: AME 0.07, ALE 0.85, PME 0.10, PLE 0.08; AME-AME 0.04, AME-ALE, PME-PME 0.10, PME-PLE 0.10, ALE-PLE 0.02. MOQ length 0.24, front width 0.36, back width 0.36. Clypeus 0.08 from AME, 0.05 from ALE. Pedipalp (Figs 50-54): Terminal apophysis present. Embolar radix with a large dorsal-apical bowl (Fig. 54). Patella dorsally longer than tibia. Strong tibial apophysis with a tapering tip and a dorsal tooth. Retrolateral margin of cymbium strongly notched at level of embolus. Embolar base with a strong ventral branch terminating in a flattened, conical, retrolaterally directed tip. Embolus emerging from the strong short erected dorsal branch with a conical ventral apophysis. Terminal apophysis without posterior sclerite, straight, with the soft tegular cuticle reaching the second third of its length. Radix forming a large concave bowl at level of embolus (Figs 53-54). Scutum brown, occupying 1/3 of opisthosoma.

DESCRIPTION of ♀: Prosoma and legs tawny. Opisthosoma dorsally grey, with darker hairs, ventrally tawny. Total length 4.25. Prosoma: 2.00 long, 1.43 wide, 0.78 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.11, PLE 0.08; AME-AME 0.07, AME-ALE 0.01, PME-PME 0.02, PME-PLE 0.03, ALE-PLE 0.06. MOQ length 0.28, front width 0.40, back width 0.43. Clypeus: 0.11 from AME, 0.06 from ALE. Epigynum (Fig. 55) with scapus-like anterior anchoring pockets protruding ventrally. Vulva (Figs 56-57).

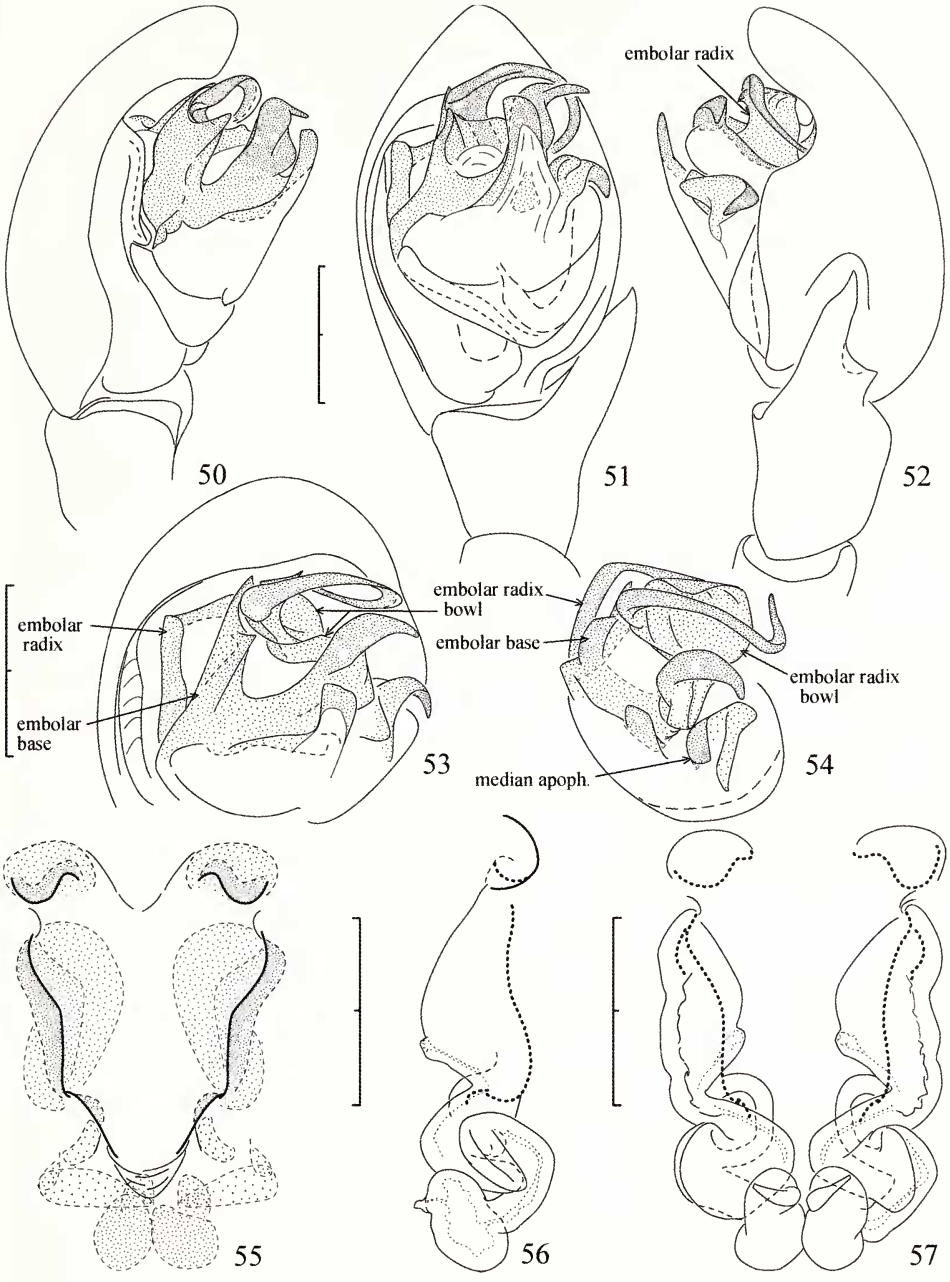
Civizelotes gracilis-group

I have not seen *C. gracilis* and *C. pygmaeus*, but the detailed drawings of Miller (1967) give good clues.

DEFINITION: ♂ pedipalp: Embolus emerging from the terminal plate of the embolar radix ("scheibenförmige Basalplatte" in Miller (1967: 269) and "Truncus" in Miller (1967: pl. 4, figs 3-4, 7-8). Radix emitting a pointed apophysis near to the base of embolus (Figs 59, 62) and "S" in Miller, 1967: pl. 4, figs 3-4, 7-8).

Female: Epigynal plate in anterior sector (Fig. 66 and Grimm, 1985: figs 236, 238).

SPECIES INCLUDED: *C. gracilis* (Canestrini, 1968) **comb. n.**, *C. pygmaeus* (Miller, 1943) **comb. n.**, and *C. ibericus* **sp. n.**



FIGS 50-57

Civizelotes dentatidens (Simon). (50-54) Left male palp. (50) Prolateral view. (51) Ventral view. (52) Retrolateral view. (53) Prolateral-ventral-apical view. (54) Ventral-apical view. (55) Epigynum. (56) Vulva, external-lateral view. (57) Id., dorsal view. Bold lines indicate epigynal folds. Scale 0.2 mm.

***Civizelotes ibericus* sp. n.** Figs 58-66

HOLOTYPE: SPAIN, Andalusia, Cordoba, Breña dam, evergreen oaks litter, 37°51'N 05°04'W; ♂; 01.06.2002.

PARATYPES: SPAIN, Nueva Castilla / La Mancha, Toledo, Cardiel de los Montes (rio Alberche), 40°02'N 04°39'W; 1 ♀ (with vulva in microvial); 15.06.1969. – Andalusia, Granada, Pradollano (S. Nevada), stones, dwarf Juniperus, 2350 m., 37°07'N 03°24 2 ♀ (with vulva in microvial); 28.05.2002. – Huelva, Santa Olalla (rio Cala), 37°55'N 06°11'W; 1 ♀; 04.07.1969.

ETYMOLOGY: The species name reflects the biogeography of the new species.

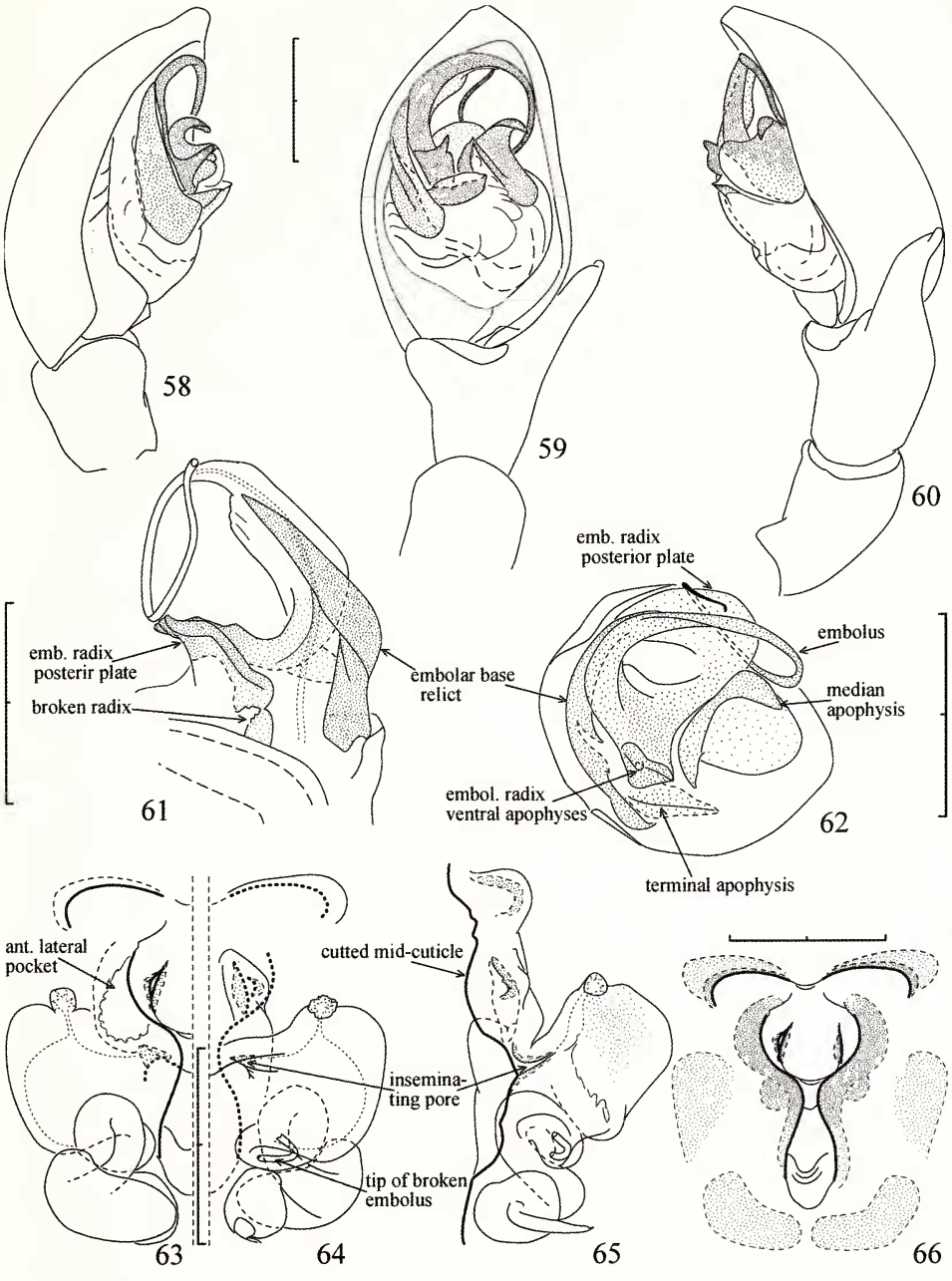
DESCRIPTION of ♂: Prosoma tawny-brown, with a few posterior bristles. Opisthosoma grey, with medium-long hairs. Legs brown. Total length 4.00. Prosoma: 1.90 long, 1.43 wide, 0.80 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.07, PLE 0.07; AME-AME 0.06, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.04, ALE-PLE 0.04. MOQ length 0.20, front width 0.34, back width 0.40. Clypeus: 0.08 from AME, 0.05 from ALE. Pedipalp (Figs 58-62): Patella longer than dorsal tibia length. Terminal plate of embolar radix expanded into a posterior branch catching the embolar loop (Fig. 62). Radix expanding into a membranous flap along the embolus (Fig. 61). Radix emitting a pointed apophysis at base of embolus. Relict embolar base less reduced than in *C. gracilis* and *C. pygmaeus*, coupled to a relict terminal apophysis. Strong median apophysis with a large elevated base. Leg spination: Femora III r001; IV p001, r001; metatarsi I v000, II v220. Tarsi I, II scopulate. Scutum occupying 1/4 of opisthosoma length.

DESCRIPTION of ♀: Prosoma dark brown. Opisthosoma black, with medium-long hairs. Legs brown, with tarsi and metatarsi slightly lighter; old specimens much lighter. Total length 3.60. Prosoma: 1.46 long, 1.10 wide, 0.58 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.05, ALE 0.08, PME 0.07, PLE 0.07; AME-AME 0.03, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, ALE-PLE 0.04. MOQ length 0.19, front width 0.28, back width 0.31. Clypeus: 0.06 from AME, 0.03 from ALE. Epigynum with sinuous lateral folds (Fig. 66). Anterior median sector filled with a globular epigynal plate containing two slits; lateral pockets situated below the folds. Vulva (Figs 63-65). Leg spination: Femora IV p001, r001; metatarsi I, II v220. Tarsi I, II scopulate.

DIAGNOSIS: *Civizelotes ibericus* differs from the other two species in this group: 1 Absence of a prolateral tegular apophysis ["h" for "Höcker des Tegulum" in Miller (1967: pl. 4, figs 3-4, 7-8)]. 2 Embolar base less vestigial and presence of a relict terminal apophysis at its base. The female paratypes found in central and southern Spain are indicating a wide distribution in Spain, and the probability that they are conspecific with the male holotype is great.

***Civizelotes caucasius*-group**

DEFINITION: Posterior eye row procurved. ♂ pedipalp: Strong elongated embolar radix (Fig. 67) terminating in a bowl. Embolar base containing the sperm duct (Fig. 68), reaching straight to the radix bowl. Relict terminal apophysis with a posterior sclerite without distinct connection. Embolus long, curled right (clockwise) on left palp. Atrium in anterior epigynal sector.



FIGS 58-66

Civizelotes ibericus n. sp. (58-62) Left male palp. (58) Prolateral view. (59) Ventral view. (60) Retrolateral view. (61) Cymbium removed, dorsal view. (62) Id., apical view. (63) Vulva, ventral view. (64) Id., dorsal view. (65) Id., median-lateral view. (66) Epigynum. Bold lines indicate epigynal folds. Scale 0.2 mm.

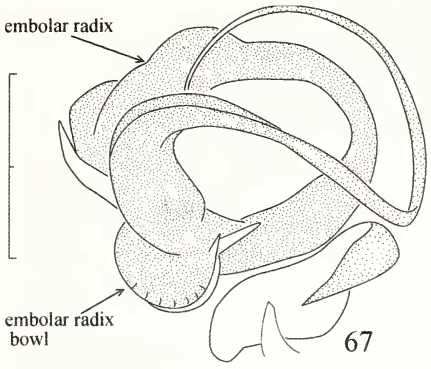
SPECIES INCLUDED: *C. caucasius* (L. Koch, 1866), *C. sostitialis* (Levy, 1998).

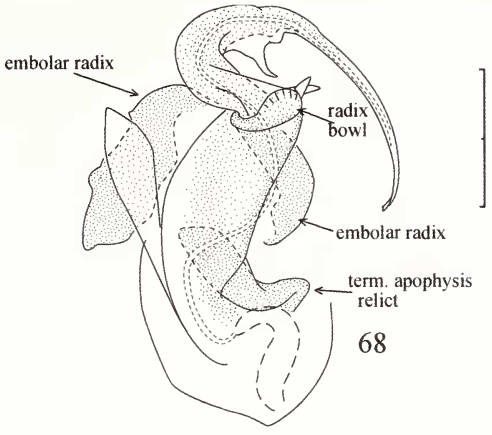
REMARKS: The structure of the pedipalp (Figs 65-66), with a long embolar radix and a developed embolar base, excludes these species from the *Civizelotes gracilis*-group. The study of copulatory mechanism (Senglet, 2004: 95, figs 26-31) shows that the embolar base and radix are penetrating to mid-length of the vulva; radix not figured, but radix bowl visible at base of embolus (Senglet, 2004: fig. 31).

Civizelotes caucasius (L. Koch, 1866) **comb. n.** Figs 67-68

Melanophora caucasia L. Koch, 1866: 144, pl. 6, fig. 87 (description of ♀).
For previous synonymy see Platnick (2012).

MATERIAL EXAMINED: GREECE, Macedonia, Serres, above Oreini, 1200 m, stones, 41°14'N 23°35'E; 5 ♂, 3 ♀; 30.06.2011. – Thessaloniki, west of Aghios Vassilios, 40°41'N 23°05'E; 1 ♂ (last moult 17.06.2008); 31.05.2008. – Aghios Vassilios, 40°40'N 23°07'E; 2 ♀ (last moults of ♀ 29.07. and 02.08.1998); 14.06.1998. – East of Apollonia, below stones, 40°37'N 23°32'E; 7 ♂, 3 ♀ (last moults of ♀ 01.07.2008); 01.06.2008. – Loutra /Volvi lake, 40°39'N 23°25'E; 3 ♂ (last moults of 2 ♂ 16 and 22.06.1998); 14.06.1998. – Kastoria, north of Kastoria (pass), 40°35'N 21°18'E; 5 ♂, 3 ♀ (last moults of 2 ♀ 21. and 25.06.1998); 20.06.1998. – Thessalia, Larissa, Gonnos, 39°51'N 22°28'E; 1 ♂; 19.05.1968. – Sterea Hellas, Phthiotidas, north of Malesina, below stones, olive trees, 38°38'N 23°14'E; 2 ♀ (last moults of ♀ 26.07. and 09.08.2008); 19.06.2008. – Near Malesina, 38°37'N 23°13'E; 3 ♂, 5 ♀; 21.05.1968. – Same; 2 ♀; 15.06.1968. – Same; 6 ♂, 3 ♀ (with vulva in microvial, last moults of ♂ 23.05.-25.06, of ♀ 02.-23.06.1998); 21.05.1998. – Mt Chlomos, 860 m, stones, 38°36'N 23°10'E; 2 ♂, 5 ♀ (last moults of 4 ♀ 16.06.-01.07.2011); 14.06.2011. – Same, 980 m, stones, 38°36'N 23°01'E; 3 ♂, 3 ♀ (last moults of ♀ 15.06.-01.07.2011); 14.06.2011. – Tràgana, 38°37'N 23°07'E; 1 ♀; 21.05.1968. – Glyphada / Theologos, 38°39'N 23°14'E; 1 ♀; 04.06.1978. – Theologos, 38°39'N 23°12'E; 3 ♂, 3 ♀ (with vulva in microvial, last moults of ♀ 29.05.-01.06.1998); 20.05.1998. – Eubea, Theologos, 38°29'N 23°47'E; 1 ♂; 11.06.2008. – Dystos lake, 38°22'N 24°08'E; 1 ♂; 17.06.1981. – Peloponnesus, Laconia, south-west of Monemvasie, stones, 36°40'N 23°01'E; 1 ♀ (last moult of ♀ 25.07.2011); 29.05.2011. – North-east of Geraki, 37°02'N 22°43'E; 1 ♂, 1 ♀ (last moults of ♂ 25.06.1998, of ♀ 01.09.1998); 13.05.1998. – Arcadia, east of Langadas, 830 m, stones, 37°40'N 22°03'E; 3 ♂, 2 ♀ (last moults of ♂ 09.-27.06, of ♀ 08 and 27.07.2011); 05.06.2011. – Argolida, Palaia Epidauros, Pinus litter, 37°39'N 23°09'E; 1 ♂; 01.10.2004. – Same 1 ♂; 05.06.1981. – Same; 2 ♂, 2 ♀ (last moults of 1 ♂ 17.05, of ♀ 14.05 and 05.06.1998); 14.05.1998. – Above Platani, 700 m, 37°48'N 22°30'E; 4 ♂, 1 ♀ (last moults of ♂ 20.06.-01.07, of ♀ 15.07.2011); 21.05.2011. – Corinthos, east of Angelokastro, stones, 37°45'N 23°01'E; 1 ♀ (last moult of ♀ 07.07.2011); 24.05.2011. – Cyclades, Paros, Sta Maria /Naoussa, Salicornia, 37°08'N 25°17'E; 1 ♀; 02.06.1998. – Naxos, north-east of Sangri, 37°03'N 25°27'E; 1 ♀ (last moult of ♀ 18.06.1998); 05.06.1998. – North of Aghios Prokopios, dry, below stones, 37°05'N 25°21'E; 1 ♀; 06.06.1998. – Koronido, 650-750 m, 37°09'N 25°37'E; 5 ♀ (last moults 28.06.-03.07.1998); 08.06.1998. – Crete, Irakleion, Damasta; 1 ♀; 28.06.1970. – Chàrakas, Eucaliptus bark, 35°01'N 25°08'E; 1 ♂ (last moult 22.03.2000); 01.10.1999. – Lassithi, Kaminàkion; 1 ♂, 1 ♀; 13.07.1970. – SPAIN, Nueva Castilla / La Mancha, Albacete, La Gineta (rio Jucar), fine leaf litter, 39°10'N 01°58'W; 2 ♂ (last moults 10 and 16.07.2002); 16.05.2002. – Ciudad Real, Fuencaliente, 38°23'N 04°18'W; 3 ♀; 03.08.1969. – Ruidera, 38°56'N 02°51'W; 1 ♀; 07.08.1969. – Estremadura, Badajoz, south of Venta del Culebrin / Monesterio, 37°58'N 06°14'W; 1 ♂ (last moult 19.06.1969); 19.06.1969. – Andalusia, Granada, La Vidriera / Pto del Pinar, 38°03'N 02°34'W; 1 ♀ (last moult of ♀ 05.07.2002); 20.05.2002. – Road Puerto de la Ragua, pine forest, 37°09'N 03°03'W; 1 ♂ (last moult 10.07.2002); 24.05.2002. – Collado del Muerto (S. Nevada), 1450 m, 37°08'N 03°28'W; 2 ♂ (last moults 13 and 22.07.2002); 29.05.2002. – Cordoba, Almodóvar del Rio (Breña dam), 37°50'N 05°04'W; 1 ♂; 01.06.2009. – Sevilla, Pintado dam /Cazalla de la Sierra, 37°59'N 05°57'W; 1 ♂, 1 ♀; 02.07.1969. – Huelva, Santa Olalla (rio Cala), 37°55'N 06°11'W; 1 ♂; 04.07.1969. – PORTUGAL, Beira Alta, Guarda, Maceira / Fornos de Algodres (Casal do Monte), 40°44'N 07°24'W; 1 ♂; 09.08.1971. –





FIGS 67-68

Civizelotes caucasius (L. Koch), left male palp, cleared. (67) Apical view. (68) Ventral-prolateral view.

BULGARIA, Centre, Pazardzik, Pestera; 1 ♀; 23.07.1972. – IRAN, Caspian See, Mazanderan, near Dasht, 37°19'N 56°04'E; 1 ♀; 27.07.1974.

DESCRIPTION: See Grimm (1985: 281, figs 231, 234-235).

Civizelotes solstitialis (Levy, 1998) **comb. n.**

Zelotes solstitialis Levy, 1998: 139, figs 97-101 (description of ♂ and ♀). – Chatzaki, Thaler & Mylonas, 2003: 60, figs 46-47, 50.-51. – Deltshev, Lazarov & Blagoev, 2004: 194, figs 12-14. – Seyyar, Demir & Topçu, 2006: 50, figs 2A-B (♂).

MATERIAL EXAMINED: GREECE, Sterea Hellas, Phthiotidas, Tràgana, 38°37'N 23°07'E; 1 ♀; 13.07.1968. – Theologos, 38°39'N 23°12'E; 2 ♂, 1 ♀ (last moults of ♂ 15. and 17.08, of ♀ 07.09.1998); 20.05.1998. – Cyclades, Naxos, Aria /Philoti, 37°02'N 25°29'E; 1 ♀ (last moult 06.09.1998); 11.06.1998.

DESCRIPTION: See Levy (1998: 139, figs 231, 234-235).

REMARK: In *C. solstitialis* half of the radix bowl is concealed by the very large base of the embolus.

Genus ***Heser*** Tuneva, 2005

TYPE SPECIES: *Heser malefactor* Tuneva, 2005, original designation

REMARK: Tuneva characterized the genus largely by the lack of typical *Zelotes* organs. In *Zelotinae* the terminal apophysis is a ventral branch of the embolar base; in *Heser* this is not present. The embolar base is strongly reduced. The embolus arises from the prolateral sector. Females have no glandular ducts (blind paramedian ducts).

***Heser nilicola*-group**

DEFINITION: In these species the apical part of the tegulum is grooved to support the embolus; in the type species the embolus rests on the prolateral part of the median apophysis. Apical grooved sector sometimes partly sclerotized. Long embolus curled

left (conter-clockwise) on the left palp. Palpal tibia and retrolateral apophysis short. Embolar base variably reduced. No intercalary sclerite present; the base of the embolar base (Figs 69, 77, 79) can be mistaken for a intercalary. Median apophysis large, except in *H. hispanus*. The glandular ducts (blind paramedian ducts) are replaced by scattered glands (Figs 75, 83, 89).

SPECIES INCLUDED: *Heser nilicola* (O. P.-Cambridge, 1874), *H. schmitzi* (Kulczynski, 1899), *H. incisupalpis* Levy, 1998, *H. bernardi* Marinaro, 1967, *H. bonneti* Marinaro, 1967 and ***H. hispanus* sp. n.**

KEY TO SPECIES OF THE *HESER NILICOLA*-GROUP

♂		1
♀		3
1a	Median apophysis small (Figs 85-86)	*H. hispanus* sp. n.
1b	Median apophysis large (Figs 70, 77)	2
2a	Embolar base reduced; embolus arising from basal prolateral tegular sector (Figs 76, 79)	*H. schmitzi*
2b	Embolar base with a projection; embolus arising from dorsal tegular sector (Figs 71-72)	*H. nilicola*
3a	Epigynal plate elongated or triangular (Figs 81-82, 87)	4
3b	Epigynal plate rounded (Figs 73-74)	*H. nilicola*
4a	Epigynal plate triangular, widened almost to the anterior anchoring pockets width (Fig. 87)	*H. hispanus* sp. n.
4b	Epigynal plate with more or less parallel sides (Figs 81-82)	*H. schmitzi*

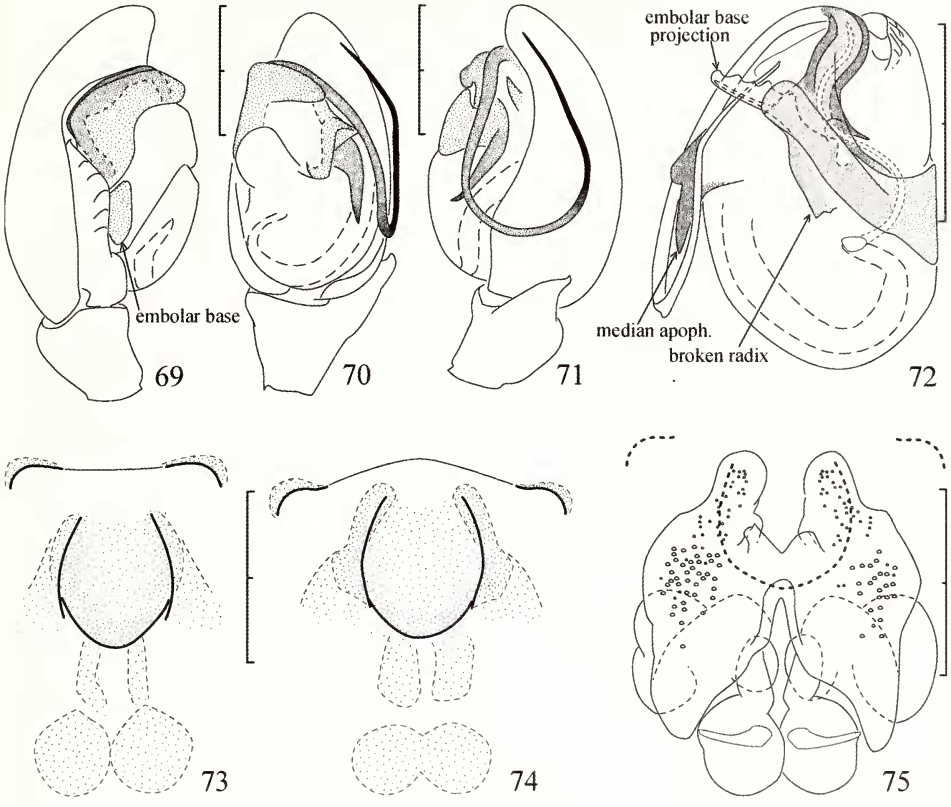
Heser nilicola (O. P.-Cambridge, 1874) Figs 69-75

Prosthesima nilicola O. P.-Cambridge, 1874: 380, pl. 5, fig. 8 (description of ♂)
For previous synomymy see Platnick (2012).

MATERIAL EXAMINED: GREECE, Peloponnesus, Laconia, south-west of Mavrovouni, litter on sand, 36°43'N 22°32'E; 3 ♂, 2 ♀ (last moults of ♀ 09.06. and 02.07.2011); 26.05.2011. – Cyclades, Paros, Parikia; 3 ♂, 2 ♀; 25.06.1968. – Parikia, 37°05'N 25°09'E; 1 ♂, 1 ♀ (last moults of ♂ 29.06, of ♀ 05.06.1998); 01.06.1998. – Naxos, Kato Potamia, 37°06'N 25°26'E; 1 ♀; 10.06.1998. – Crete, Chania, Sougia, 35°15'N 23°48'E; 1 ♂ (last moult 22.03.2000); 09.10.1999. – FRANCE, Corsica, Sud Corse, Testa pass /Bonifacio, 69 m; 1 ♂; 27.05.1971. – Acorane bridge /Sartène; 1 ♂; 28.05.1971. – Same; 1 ♀; 19.06.1999. – Portigliolo /Propriano, below vegetation & stones; 2 ♀; 17.06.1999. – ITALIA, Sardinia, Sassari, Palau (Liscia river); 1 ♀; 08.09.1968. – Castelsardo; 1 ♀; 26.05.1999. – Stagno di Calich /Alghero; 1 ♂, 1 ♀ (last moults of ♂ 05.06, of ♀ 01.06.1999); 29.05.1999. – Nuoro, Cala Ginepro /Orosei, below Juncus; 1 ♀; 10.06.1999. – Oristano, Iz Arénas / Narbolia, dry leaf litter on sand; 1 ♂, 1 ♀; 31.05.1999. – Stagno San Giusta, Eucalyptus bark; 1 ♂, 1 ♀; 01.06.1999. – Cagliari, Quartu (laguna); 1 ♀; 03.06.1999.

DESCRIPTION: See Platnick & Shadab (1983: 274, figs 316, 327-328).

REMARKS: The cleared ♂ palp shows a relatively well developed embolar base with a projection (Figs 69-72). The base of the embolar base may be mistaken for an intercalary sclerite. ♀: The epigynal plate is rounded. The distance between epigynal plate and anterior anchoring pockets is highly variable. Greek form (Fig. 73): Platnick & Shadab (1983: figs 265-266, showing a faulty connection of the median vulval duct); Chatzaki *et al.* (2003: fig. 85); FitzPatrick (2007: Fig. 95). Occidental form (Fig. 74,



FIGS 69-75

Heser nilicola (O. P.-Cambridge). (69) Left male palp, prolateral view. (70) Id., ventral view. (71) Id., retrolateral view. (72) Id., cleared, dorsal view. (73) Epigynum, from Greece. (74) Id., from Sardinia. (75) Vulva, dorsal view (Sardinia). Bold lines indicate epigynal folds. Scale 0.2 mm.

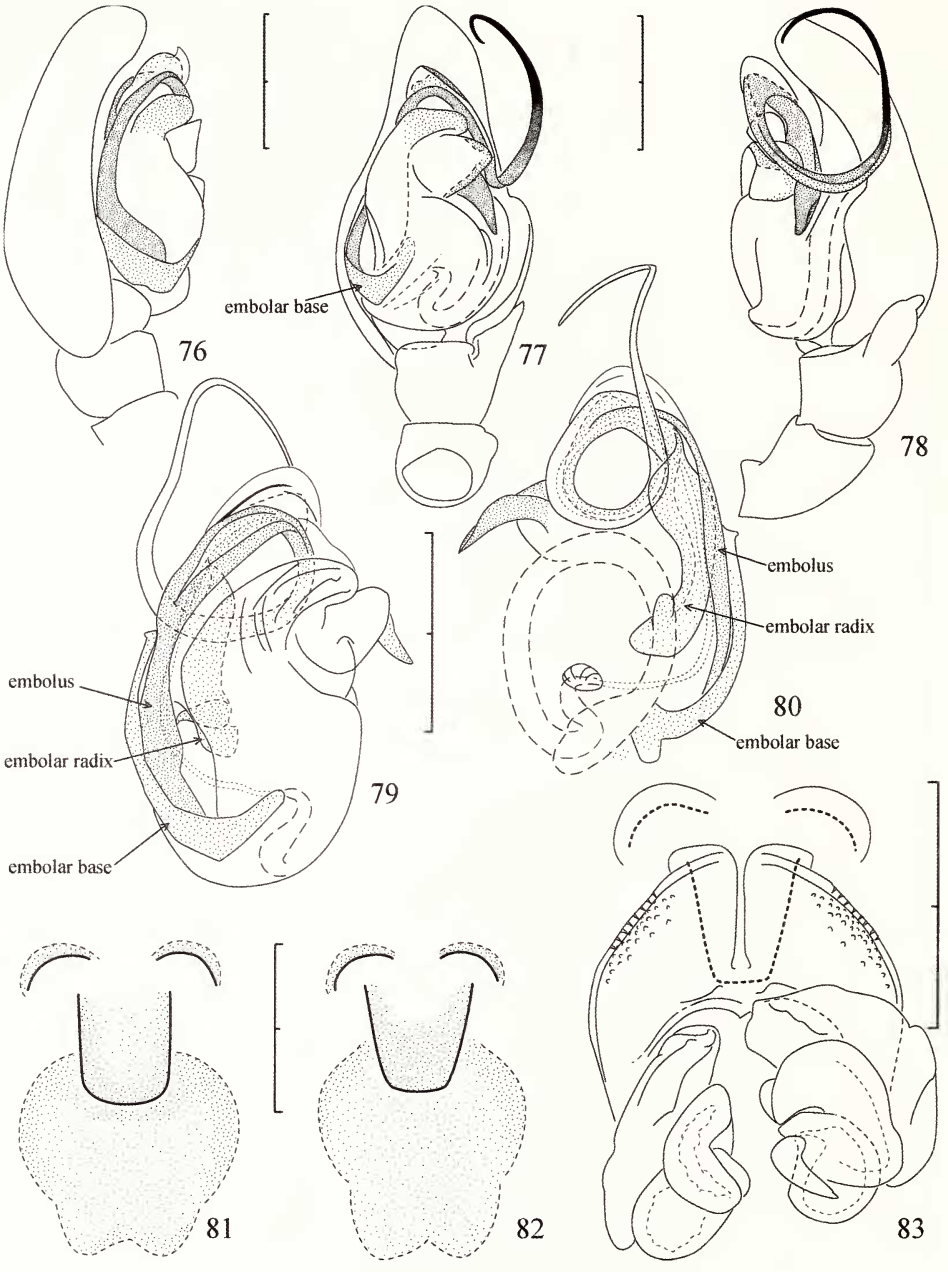
Sardinia): Cornick *et al.* (2004: fig. 3a); Melic (1995: figs 1-2, showing a faulty connection of the median vulval ducts): Sardinia, Corsica, south of France and north Spain.

Heser schmitzi (Kulczynski, 1899) Figs 76-83

Prosthesima schmitzii Kulczynski, 1899: 359, pl. 6, fig. 32 (description of ♀).
Zelotes schmitzi. – Platnick & Murphy, 1998: 118, figs 1-4 (♀, description of ♂).

MATERIAL EXAMINED: SPAIN, Levant / Murcia, Alicante, Elche, palm grove, 38°17'N 00°42'W; 1 ♂; 15.05.2002. – Elda, 38°30'N 00°47'W; 1 ♂; 19.06.1971. – Murcia, Archena, 38°07'N 01°17'W; 1 ♂; 17.05.2002. – Andalusia, Almeria, Adra (La Albufera), cultivated dryed pond, 36°46'N 02°58'W; 10 ♂, 3 ♀ (last moults of 2 ♂ 27.05 and 15.06, of 2 ♀ 30.05 and 12.06.2002); 25.05.2002. – Malaga, Torre de Mar, 36°44'N 04°07'W; 1 ♀; 27.07.1969.

DESCRIPTION: Prosoma and legs brown, with lighter tarsi. Opisthosoma black, with adpressed hairs and black bristles. Leg spination: Femora IV r001; tibiae III r111, IV p110; metatarsi I v000, IV v220/222. Tarsi I, II scopulate.



FIGS 76-83

Heser schmitzi (Kulczynski). (76-80) Left male palp. (76) Prolateral view. (77) Ventral view. (78) Retrolateral view. (79) Cleared, prolateral-ventral view. (80) Id., dorsal view. (81-82) Two epigyna, same population. (83) Vulva, dorsal view. Bold lines indicate epigynal folds. Scale 0.2 mm.

♂: Total length 3.05. Prosoma: 1.36 long, 1.03 wide, 0.54 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.06, PLE 0.06; AME-AME 0.03, AME-ALE 0.01, PME-PME 0.02, PME-PLE 0.02, ALE-PLE 0.03. MOQ length 0.10, front width 0.16, back width 0.18. Clypeus: 0.06 from AME, 0.04 from ALE. Pedipalp (Figs 76-80): Patella dorsally longer than tibia. In cleared bulbus (Figs 79-80) a short embolar radix and a vestigial embolar base visible. Median apophysis large. Scutum occupying 40% of opisthosoma length.

♀: Total length 4.70. Prosoma: 1.53 long, 1.14 wide, 0.60 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.04, ALE 0.07, PME 0.06, PLE 0.06; AME-AME 0.03, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.03, ALE-PLE. MOQ length 0.14, front width 0.27, back width 0.31. Clypeus: 0.04 from AME, 0.03 from ALE. Epigynum (Figs 81-82), epigynal plate variable, with sides parallel to feebly diverging. Vulva (Fig. 83) with scattered glands on the sides.

***Heser hispanus* sp. n.** Figs 84-89

HOLOTYPE: SPAIN, Estremadura, Badajoz, Monesterio, 38°05'N 06°16'W; ♂; 19.06.1969.

PARATYPES: Same locality as for holotype; 1 ♀ (with vulva in microvial); 19.06.1969. – Spain, Andalusia, Sevilla, Alanis, 38°02'N 05°11'W; 2 ♀ (with vulva in microvial); 01.07.1969.

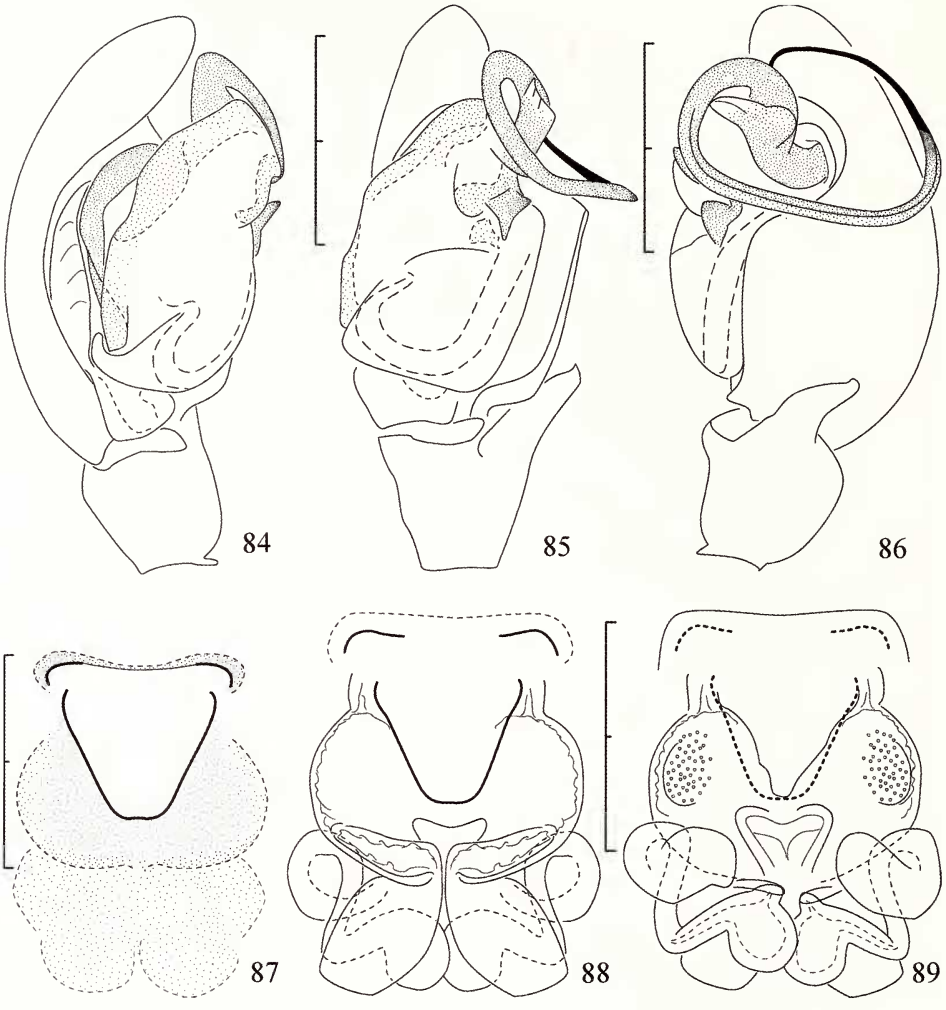
ETYMOLOGY: The species name refers to the geographical occurrence of these spiders.

DESCRIPTION ♂ HOLOTYPE: Prosoma mid-brown, with medium-sized bristles. Opisthosoma black, covered with medium-long bristles. Tarsi I, II scopulate. Total length 2.76. Prosoma: 1.20 long, 0.87 wide, 0.48 wide at level of posterior eyes. Eye sizes and interdistances: AME 0.03, ALE 0.07, PME 0.06, PLE 0.06; AME-AME 0.03, AME-ALE 0.01, PME-PME 0.02, PME-PLE 0.02, ALE-PLE 0.04. MOQ length 0.12, front width 0.20, back width 0.23. Clypeus: 0.06 from AME, 0.04 from ALE. Pedipalp (Figs 84-86): Patella dorsally longer than the short tibia. Retrolateral tibial apophysis shorter than tibia, dorsally arched. Embolus emerging from backside of tegulum. Median apophysis small. Scutum occupying 35% of opisthosoma length. Leg spination: Femora IV p001, r001; metatarsi I v000; II v210; III-IV v221.

DESCRIPTION ♀ FROM ALANIS: Prosoma tawny-brown, with median to long bristles. Opisthosoma blackish, covered with dense median light coloured bristles. Legs entirely tawny. Total length 3.40 (3.26). Prosoma: 1.24 (1.22) long, 0.93 wide, 0.48 wide at level of posterior eyes. Eye size and interdistances: AME 0.04, ALE 0.06, PME 0.042, PLE 0.042; AME-AME 0.03, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.02, ALE-PLE 0.03. MOQ length 0.14, front width 0.20, back width 0.24. Clypeus: 0.04 from AME, 0.04 from ALE. Epigynum (Fig. 87) with triangular epigynal plate, its anterior part almost as wide as anterior anchoring pockets. Vulva (Figs 88-89 from Alanis) with scattered glands on the dorsal sides. Leg spination: Femora IV p001, r001; tibiae IV p110; metatarsi I v000; IV r112.

Heser infumatus (O. P.-Cambridge, 1872)

Drassus infumatus O. P.-Cambridge, 1872: 238, pl. 15, fig. 16 (description of ♂ and ♀).
Heser infumatus. Tuneva, 2005: 323 (transfer of ♂ and ♀ from *Zelotes*).
For previous synomymy see Platnick (2012).



FIGS 84-89

Heser hispanus sp. n. (84) Left male palp, prolateral view. (85) Id., ventral view. (86) Id., retrolateral view. (87) Epigynum. (88) Vulva, ventral view. (89) Id., dorsal view. Bold lines indicate epigynal folds. Scale 0.2 mm.

MATERIAL EXAMINED: GREECE, Cyclades, Paros, Parikia; 1 ♀; 25.06.1968.

DESCRIPTION: See Levy (1998: 145, figs 112-115).

REMARK: Not a member of the *Heser nilicola*-group; the female of *H. infumatus* has the anterior epigynal margin ventrally projected like a scapus.

ACKNOWLEDGMENTS

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